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Gastric and Duodenal Ulcer

Some Observations on Management*

By I. S. Ravdin, M.D.
Philadelphia, Pennsylvania

I. S. Ravdin, M.D.

Harrison Professor of Surgery, School of Medicine, University of Pennsylvania, and Director of the Harrison Department of Surgical Research, School of Medicine, University of Pennsylvania; Surgeon, Hospital, University of Pennsylvania.

Of the common organic lesions of the abdominal viscera none has given rise to such speculation from the standpoint of etiology, and none has been associated with such varied treatment, as have gastric and duodenal ulcers. I prefer to designate them in regard to their anatomic location rather than to call them collectively peptic ulcers, for although the two lesions may have a somewhat similar etiologic basis they are dissimilar in the frequency of their common complications.

It is not as yet definitely proven that gastric ulcer and duodenal ulcer are similar diseases for the etiology of these processes is as yet unknown and a careful analysis of existing data indicates that the so-called precipitating factors may be in reality factors of secondary importance.

It is a well known fact that gastric and duodenal ulcers both in man and the experimental animal tend to heal and that they tend to recur. While both lesions are characterized by periodicity in symptoms the duodenal ulcer shows this more strikingly than does the gastric ulcer. A gastric ulcer may begin as a malignant ulcer or a benign ulceration may become malignant. The ulcerations of the greater curvature of the stomach are nearly always carcinomatous. On the other hand, primary duodenal carcinoma, or carcinoma secondary to duodenal ulcer is an extremely rare lesion. Duodenal ulcer is more prone to hemorrhage and perforation.

In spite of these differences evidence which we have been collecting leads us to suspect that the chronic benign ulcerations of the stomach and duodenum may have a similar nutritional background. The ease with which such ulcerations are produced in the experimental animal by one or another method of bile diversion suggests that under such circumstances there may result a failure in absorption of certain fat-soluble accessory foodstuffs which, under normal conditions of nutrition, protect the gastroduodenal mucosa. The reports on the effectiveness of bile acid therapy in correcting the erosions of the mucosa in certain experimental animals[1] and man,[2] and the work of Kohler, Randle, Elvejehem and Hart[6] on a stomach ulcer factor in grass juice, are suggestive that a nutritional basis for certain of the gastric and duodenal ulcerations does exist.

While the problem of etiology and the best method for medical treatment may still be in doubt, the indications for surgical therapy are becoming clearer. There is as yet no unanimity of opinion as to the exact operation best suited for the various conditions that are met, and there may, of course, never be, but the conditions requiring immediate surgical therapy without recourse to medical treatment are generally agreed upon.

*From the Harrison Department of Surgical Research, Schools of Medicine, University of Pennsylvania; and the Surgical Clinic of the Hospital of the University of Pennsylvania, Philadelphia.

I shall discuss, in the main, the methods which we are using in the problems that come to us.

Roentgen Studies

No one entrusted with the care of ulcer patients should attempt treatment without the aid of a competent roentgenologist. The location of the ulcer, its extent, and the response to therapy must be determined by carefully controlled fluoroscopic and skiagraphic studies. As far as possible all fluoroscopic studies on a given patient should be made by the same individual and under the same circumstances. Figures 1 and 2 demonstrate what will happen when the barium meal is slightly altered in composition. In Figure 1 a simple water-barium meal which we believe should be the standard meal, was used and the gastric emptying time was one hour and thirty-five minutes. In Figure 2 a small amount of fat as chocolate was added to the meal and the gastric emptying time in the same patient was over six hours. Data obtained following variations in the barium meal may give rise to the conclusion that cicatricial stenosis is occurring or that the condition is improving when in reality the retention or more rapid emptying is due to the addition or exclusion of some foodstuff in the barium meal.

The mere fact that what appeared to be a very large ulcer becomes much smaller after a few days treatment is not always an indication that healing is taking place.

Contraction of the muscularis mucosa as was shown by Forssell[3] will greatly increase the apparent size of an ulcer as is shown in Figure 3. After a few days of adequate therapy the contraction of the muscularis mucosa subsides and the actual size of the ulcer is demonstrated (Fig. 4). It is because of findings such as these that the diagnosis of malignancy on the basis of size of the ulcer is not always safe, nor is it safe to conclude that rapid healing of what appeared to be a large ulcer has taken place.

Indications for Operation in Gastric and Duodenal Ulcer

All ulcers of the greater curvature of the stomach should be considered malignant and the patient subjected to a subtotal gastrectomy as soon as possible. Ulcers proximal to the gastric incisure are as a rule benign. Prepyloric and posterior wall ulcers of the stomach should be considered malignant until proven otherwise. The patients with either of the latter lesions should immediately be put on an adequate medical regimen, and if, after three to five weeks there has been no change in the roentgenologic findings, or if the ulcer has increased in size, he should be operated on.

If the ulcer shows signs of healing, as demonstrated by size, filling defect, and mobility of the wall, medical treatment can be continued. The patient should, however, be subjected to monthly roentgenologic studies and if, at any time during treatment, the ulcer shows signs of increasing in size, or in depth of penetration, operation should be advised.

When surgery becomes advisable for the gastric ulcer we believe that a radical subtotal gastrectomy is the operation of choice. Continuity of the gastro-intestinal tract may be reëstablished by one of a number of methods. I agree in general with Roscoe Graham[4] when he says "all operations for a gastric ulcer other than partial gastrectomy have so frequently been followed by sequellæ, that . . . unless the ulcer can be removed, the patient is better without operation."

Perforation

The first and most important indication for operation in ulcer is perforation. The sooner operation is performed following perforation the lower the mortality. The diagnosis must depend upon the history, physical examination and the roentgenologic findings. When x-ray studies are made the patient should be x-rayed in the anterior-posterior prone position with the table tilted and in the lateral horizontal position. A clear history, and positive physical signs of perforation should lead to exploration even in the absence of air under the diaphragm by x-ray studies (Figs. 5 and 6). It must also be remembered that the best time to demonstrate free air under the diaphragm is shortly after perforation has taken place. As the time from perforation to x-ray study increases absorption of the air occurs and its demonstration becomes more difficult.

Operation

The first and most important consideration in perforation is saving the life of the patient. This objective, we believe, is best secured by simple closure of the ulcer and reinforcing the suture line with an omental graft. The performance of a gastro-enterostomy or a partial gastrectomy in the presence of even a chemical peritonitis is not based upon sound surgical judgment. While perforation does not lead to the healing of all ulcers, it does to some.

If suction drainage of the stomach is established immediately after operation, the edema surrounding the perforation soon disappears and gastro-intestinal continuity is reëstablished. Resection, if necessary, should be done at a time when the patient is in a better condition to stand it. The lowest mortality is to be found in the hands of those surgeons who treat perforation by conservative surgical procedures.

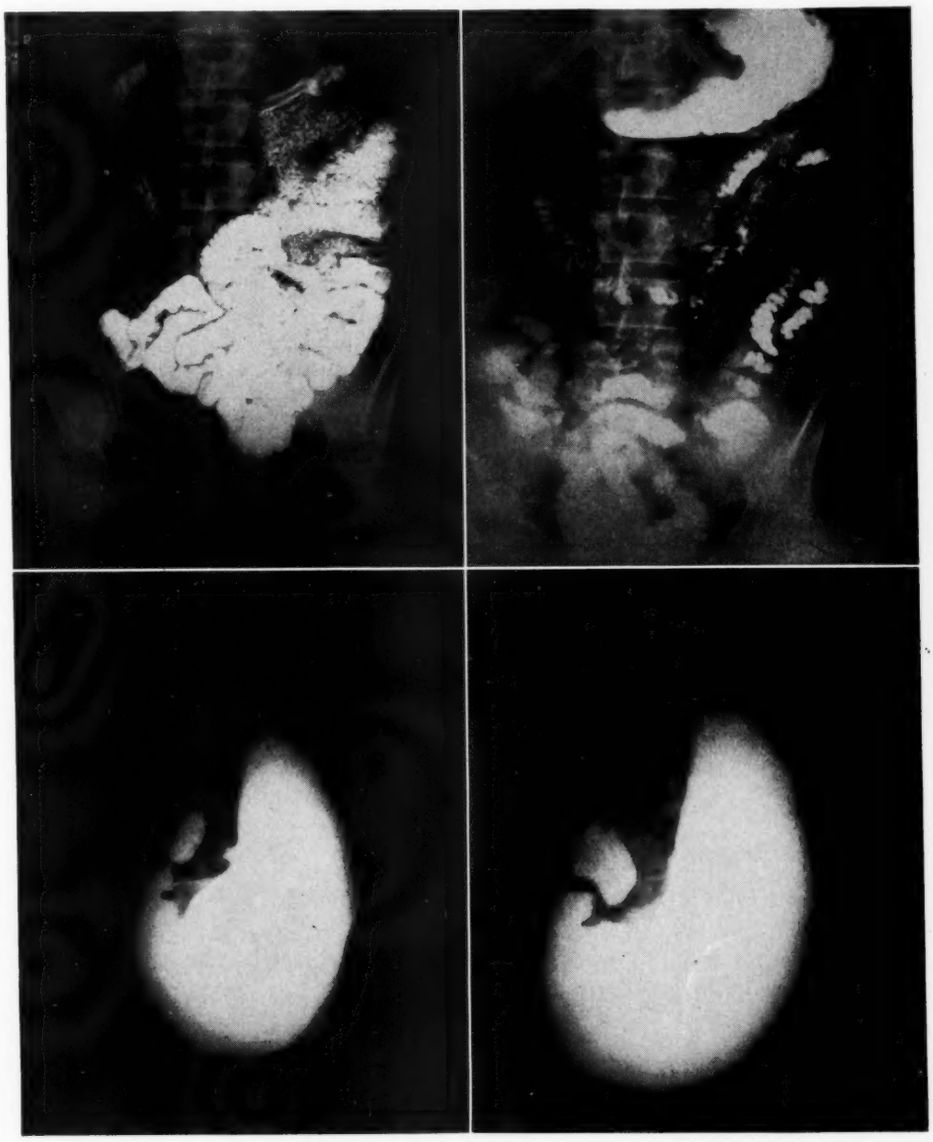

Fig. 1 *(upper left)*. Water-barium meal. Stomach emptied in one hour and thirty-five minutes.
Fig. 2 *(upper right)*. Water-barium meal plus small amount of fat. Stomach emptied in over six hours.
Fig. 3 *(lower left)*. Gastric ulcer before treatment. Contraction of muscularis mucosa.
Fig. 4 *(lower right)*. Gastric ulcer after few days' treatment. Contraction of muscularis mucosa subsided.

Hemorrhage

While the indications for operation in a penetrating, perforating or perforated ulcer are clear, the indications for operation in the

presence of hemorrhage are not so clear and there is a wide diversity of opinion regarding the best procedure should operation be decided upon.

There is no doubt that the lowest reported mortality in bleeding ulcer has been reported by Meulengracht[8,9] but one who has observed a number of patients with massive, rapidly exsanguinating hemorrhages cannot help but feel that a medical regimen is not the answer to hemorrhage of all types and from all locations.

From the standpoint of diagnosis it is fortunate that the majority of the hemorrhages we are called upon to treat occur from duodenal ulcers. It is, however, not sufficient to know whether the lesion is in the duodenum. We have for instance never seen an exsanguinating fatal hemorrhage in an anterior duodenal ulcer. The large continuing hemorrhages nearly always occur from posterior duodenal ulcers (Fig. 7).

The position of the ulcer, the age of the patient, the history of previous hemorrhage, and the condition of the patient are factors which should be considered in deciding wether medical or surgical treatment, or a combination of the two, should be carried out in an individual patient.

Treatment

In young patients with only moderate hemorrhage we have in the last few years followed the plan of Meulengracht[8,9] and fed them. Our experience with this method has been highly satisfactory. The first hemorrhage in a patient under fifty is rarely fatal. If the ulcer is not on the posterior wall of the duodenum the patient may not have another hemorrhage. In patients past fifty, the hemorrhage, even from anterior wall ulcers, may prove much more serious and the indications for early operation are clearer. It is generally accepted that recurrence of the hemorrhage increases the mortality from this complication, but we have seen a number of patients who have had from five to seven hemorrhages before coming to operation and who have then done well. We believe, however, that recurrent hemorrhage should be considered an indication for operation even though the hemorrhages may not have been severe.

In the most extensive hemorrhages we begin a slow continuous drip transfusion as soon as possible after admission to the hospital. If the patient continues to lose ground during a period of from twelve to eighteen hours operation had best be done without delay. The two main reasons for the high mortality following operation for massive hemorrhage have been delay in operation and failure to ligate the blood supply to the ulcer base.

Whether the operation is done as an emergency or after cessation of the hemorrhage and partial recovery from the anemia, a radical operation should be performed. The results in our hospital following conservative operations such as gastro-enterostomy or attempted ligation of vessels supplying the ulcer base have been 26 per cent. The radical gastrectomy and duodenectomy recommended by Roscoe Graham[4] is, we believe, the method of choice. Properly planned and executed, and with transfusions during and after operation, the risk is much less than that we have had in the past, and it is surprising to observe how well these patients do.

The important thing is that in desperately ill patients operation should not be delayed too long, and that once decided upon nothing short of a radical operation should be attempted.

Pyloric Obstruction

Evidence of pyloric obstruction either from a gastric or duodenal ulcer is not uncommon. Frequently the obstruction is not due to cicatricial stenosis but is associated with spasm or edema or both. When the obstruction is the result of pyloric spasm it is relieved, in whole or in part, by the administration of spasmolytic agents. When due to edema with or without co-incidental spasm the differential diagnosis, even with the aid of competent roentgenologic study, may be difficult. The existence of a low plasma protein is suggestive that the obstruction is due at least in part to edema. If so the institution of suction drainage which puts the stomach at rest and the administration of several plasma transfusions which will tend to restore a depleted plasma protein will result after a few days in definite evidence of a functioning pylorus.

Diet.—The chronically obstructed ulcer patient is frequently malnourished. This is often due in part to the rigid diet which medical practitioners

have previously imposed on these patients; in part to a restriction in food intake by the patient because of pain; and in part to the vomiting of food ingested. Thus, many of the obstructed patients come for relief with obvious evidences of dehydration and salt loss and within recent years this deficit has been corrected by the administration of fluid and salt by parenteral routes.

It should have been equally obvious to us that these patients may also have deficits in various vitamins, especially vitamin C and B complex; that they may have had a serious depletion of the plasma protein; and that the glycogen stores of the body may be at the zero point. The preparation of these patients prior to operation is, therefore, of the greatest importance if morbidity and mortality are to be kept as low as possible.

Once the nutritional condition of the patient has been brought to as satisfactory a state as is possible, operation should be carried out. In the benign cicatricial stenoses the gastric acid concentration is nearly always low and any operation which provides an adequate stoma for gastric emptying will be associated with excellent end-results. In these cases we frequently have done a posterior gastro-enterostomy and have never had any evidence that this procedure in the presence of pyloric stenosis was followed at any time by a marginal or jejunal ulcer.

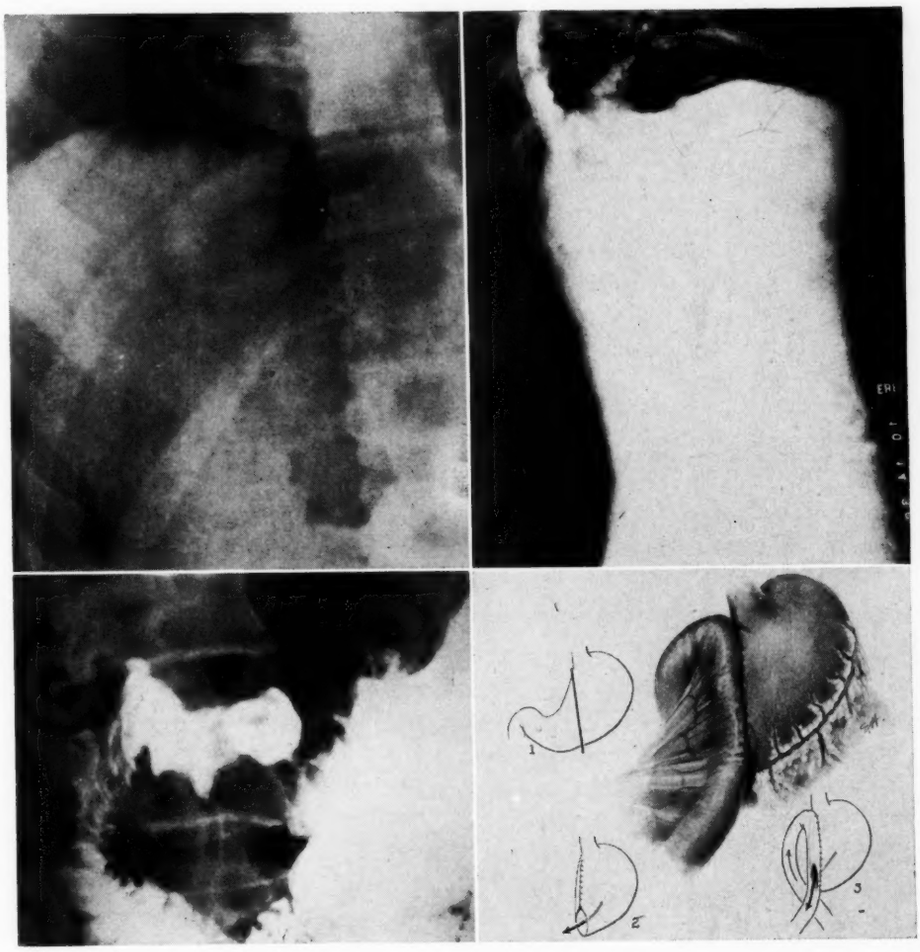

Fig. 5 *(upper left)*. Perforation duodenal ulcer. Air under diaphragm. Anterior view.
Fig. 6 *(upper right)*. Perforation duodenal ulcer. Air under diaphragm. Lateral view.
Fig. 7 *(lower left)*. Duodenal ulcer—posterior wall. This is the type of ulcer which frequently gives rise to hemorrhage.
Fig. 8 *(lower right)*. Radical gastrectomy for intractable duodenal ulcer.

Benign cicatricial stenosis of the pylorus is, I believe, the major indication for a posterior gastro-enterostomy. In only one other group of ulcer patients do we use this operation. In the patient past sixty years who has had ulcer

symptoms for a number of years, and in whom at operation there is no evidence of malignancy but the ulcer has "kissed" into the liver or contiguous structures, posterior gastro-enterostomy provides relief with minimal risk.

Intractability to Medical Treatment

While perforation, hemorrhage, obstruction, and suggestive evidence of malignancy, are in our opinion the major indications for surgical intervention, there are those who believe that failure to obtain evidence of healing after what has been supposed to be a period of adequate diet is also an indication for operation. We are not so sure of this and have within recent years operated only on those intractable ulcers where pain and discomfort interfered with the patient's ability to work.

Diet helps in the treatment if food is kept in the stomach at all times, thus to a degree taking care of the increased acid secretion. I venture to suggest that one reason why the Sippy diet has proven so efficacious is that food is constantly kept in the stomach by the frequent administration of milk and cream and also because the high content of fat in the cream greatly retards the rate of gastric emptying. If food is kept in the stomach alkalies are not necessary in the routine medical management of these patients.

There are, however, other factors, some of which are known and some of which may not be, which must be taken into consideration during any medical program. Smoking must be stopped, mental stress and strain must be relieved, and every attempt must be made to provide a dietary program which can at least correct any deficit of the known accessory foodstuffs.

In the persistent benign ulcers of the lesser curvature, and in the intractable posterior wall ulcers of the duodenum, especially in the presence of a high gastric acid concentration, operation will frequently have to be done, but when it is posterior gastro-enterostomy is not the procedure of choice (Fig. 8). If a radical gastrectomy is not contemplated the patient had best be continued on a medical regimen. Posterior gastrojejunostomy is not to be done merely because the patient refuses, or fails to live within the careful requirements of a well constituted conservative program. A more widespread realization of this will result in a reduction of the number of marginal and jejunal ulcers, and gastrojejuno-colic fistulæ that come to every surgical clinic.

Some Factors Concerned with Pre-operative and Postoperative Care

I have reviewed what we consider the important indications for operation in gastric and duodenal ulcer and have in general indicated the type of procedure we have found best suited for each condition requiring operation. While a correctly selected procedure and a skillfully done operation will do much to reduce morbidity and mortality the pre- and postoperative care of ulcer patients is of the greatest importance. In perforation and hemorrhage any extensive period of preparation may prove fatal, but in obstruction and intractability, a period of preparation will markedly reduce morbidity and mortality regardless of the operation which is done.

Many of these patients come for aid, as I have already intimated, after long periods of undernutrition. They are frequently dehydrated from vomiting and fluid restriction. They are deficient in a number of the vitamins, especially the B complex and C, and there is present in many of them a deficiency in the glycogen stores of the body and more important the plasma protein and the labile protein stores.

In patients with evidence of complete or incomplete pyloric obstruction we at once institute suction drainage after the method of Wangensteen and Paine.[12] Nothing assists so much in overcoming the edema surrounding the obstruction as putting the stomach at rest by keeping it empty. The fluid and salt balance are restored by the intravenous administration of a normal sodium chloride solution. If there are evidences of a hypoproteinemia, before or after the administration of the saline solution, blood transfusions or transfusions of plasma or serum are given. The simplest and most rapid means of restoring a depleted plasma protein is by giving normal plasma or serum intravenously. If the patient is anemic transfusions of whole blood are exceedingly useful.

Lanman and Ingalls[7] have shown that a vitamin C deficiency may be a potent factor in wound healing and Thompson, Ravdin, Rhoads and Frank[10,11] have shown that wound healing

is greatly retarded in the presence of hypoproteinemia. Thus, two factors are now known which play an important rôle in the wound disruptions which are not infrequent in patients operated on for gastric lesions.

A vitamin B deficiency results in marked gastric atony and a deficiency of all or part of the B complex is nearly always present in ulcer patients with large atonic stomachs, especially when the dilatation is unassociated with pyloric obstruction. The observations of Heublein, Thompson and Scully[5] point strongly to the fact that the administration of B_1 alone in B complex deficient dogs does not lead to a complete return to normal gastric tone. We have, however, given patients whom we have suspected of a B complex deficiency, and who could not take yeast concentrate by mouth, B_1 and B_2 and nicotinic acid parenterally, but where possible, yeast by mouth should be used during the pre-operative period.

In the completely or incompletely obstructed cases a feeding tube can be passed through the pylorus after a few days of suction therapy. When this is accomplished we feed our patients a protein hydrolysate fortified with glucose, fat and vitamins, directly into the jejunum. Such a program for from four to seven, or even ten days prior to operation is of the greatest importance, and the continuation of this feeding regimen during the postoperative period prevents further starvation at a time when the stomach cannot empty.

Edema around the suture line from the trauma of operation is greatly increased in the presence of hypoproteinemia. Many patients have been subjected to secondary operations for a supposed mechanical defect of the operation when in reality the obstruction at the site of the new stoma was the result of a profound biochemical disturbance. A careful study of the plasma chlorides and protein will frequently give the necessary clue for adequate treatment. It should be remembered that in the presence of a low plasma protein the administration of large amounts of sodium chloride will still further increase edema especially at the operative site. The postoperative care of these handicapped patients requires a working knowledge of the processes involved in keeping fluids in the blood vessels.

The method of oro-jejunal feeding which Doctor Stengel and I have reported permits gastric syphonage and jejunal feeding. Thus it permits the fulfillment of two requirements of the post-operative period, gastric rest and jejunal alimentation.

Regardless of the size of the new stoma and regardless of the presence or absence of hypoproteinemia some edema occurs along the line of suture and gastro-intestinal motility is not normal for some days after operation. The early feeding by mouth of a solid diet is, we believe, a mistake. The convalescence is smoother if solid food, even in the form of a low residue liet, is withheld until eight to twelve days after operation.

Regardless of what operation is done it must be remembered that the patient is not well when he leaves the hospital. He may have lost his ulcer but he may still possess the etiologic basis of his disease. It is, therefore, to his best interest to continue a medical regimen and to avoid smoking. Thus, the surgical treatment of gastric and duodenal ulcer remains in part a medical problem.

The surgeon in considering operation for a gastric or duodenal ulcer must, as Roscoe Graham has so well said, "Take into consideration (1) the site of the ulcer; (2) the character of the pathological lesion; (3) the associated physiological disturbances; (4) the resultant biochemical disturbances; (5) the age of the patient." When the patient accepts the decision that surgical therapy offers the best chance for cure he should expect: (1) an excellent chance of recovery from the operation; (2) relief from symptoms; (3) reasonable assurance against recurrence, and (4) ability to return to his usual work.

When the etiological factors in gastric and duodenal ulcer are more clearly defined it is highly likely that surgical therapy will play a smaller and smaller rôle in the treatment of these disorders.

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Intestinal and Hepatic Disorders

In Congestive Circulatory Failure*

By Jonathan C. Meakins, M.D.

McGill University
Montreal, Canada

JONATHAN CAMPBELL MEAKINS, M.D.

Charter Fellow and First President (1929-31), Royal College of Physicians and Surgeons of Canada; Fellow of the American College of Physicians, 1928; Member of the Board of Regents, 1928-38; President, 1934-35; President, Canadian Medical Association, 1935-36; and Member of the American Board of Internal Medicine, 1936.

THE functional derangements which contribute to and result from congestive circulatory failure are probably the most complicated series of events which we have to deal with in Clinical Medicine. There have been many attempts to classify this condition; but, none of them has been entirely satisfactory as the series of events or conditions are not simple or constant. There are many variables which are modified from time to time both as to quality and quantity.

There would seem, however, to be one constant feature, namely, a depreciation of the myocardial function; in other words, a lessening of the capacity of the cardiac ventricles to maintain an efficient systolic output.

It is immaterial at the moment whether this depreciation is principally attributable to the right or left ventricle, and further, it is also immaterial whether the cause is infectious as in rheumatic or syphilitic carditis; metabolic as in thyroid disease or beri-beri; or degenerative as in hypertension, brown atrophy or simple coronary artery disease. The influence of valvular disease or arrhythmias is purely an embarrassment to the function of an already damaged myocardium. It is an interesting point to stress that congestive failure is seldom the result of an acute process. It is rather a long delayed aftermath. It seldom occurs during the acute carditis of rheumatic fever in childhood, acute syphilitic carditis, immediately following a coronary infarction, or during the acute stages of hypertension. An important feature of the condition is the chronicity of the initial lesion. But this does not contradict the fact that congestive failure may in itself progress in the first attack with astonishing rapidity. It would almost seem as if there were a summation of events, the combination of which leads to this peculiar but common circulatory disaster. Further, one attack is not necessarily permanent nor recurrent although it is usual for the latter to occur.

Rôle of Functional Disturbances

The known functional disturbances which may enter into the production of the condition may be summarized as follows.

Decreased Systolic Output and Reduced Minute Volume of the Blood Flow.—This is primarily a myocardial defect but may be aggravated by valvular lesions particularly mitral or aortic stenosis, tachycardias such as auricular fibrillation or flutter or paroxysmal auricular or ventricular tachycardia. If the myocardium is efficient, congestive failure will not supervene even if they be present.

Increased Venous Pressure.—This is a more complicated mechanism and may result from a number of factors.

(a) Increased intra-pulmonary pressure from a mitral valvular lesion or a left ventricular dilatation with uncompensated mitral insufficiency and positive intrapleural pressure, thus impairing the respiratory influence on venous return.

(b) Tricuspid insufficiency which produces an active increase of venous pressure as shown by a positive venous pulse.

Reduced Tissue Oxidation.—Either from impaired pulmonary function, reduced blood supply to the tissues, or a deficiency of vitamin B complex.

*Read before the Michigan State Medical Society, Grand Rapids, September 19, 1939.

It is an interesting point to remember that in congestive failure the oxygen requirements are apparently increased while at the same time the capacity to supply these needs is reduced.

As a result tissue anoxia is always on the verge of precipitation with consequent increase of lactic acid in the tissues with a tendency to a decrease in the pH, a state to which the myocardium is particularly intolerant.

Miscellaneous Group.—There may here be included a group of conditions which have a particularly aggravating influence rather than being initiating, namely, thyrotoxicosis, thyroid deficiency, impaired carbohydrate utilization, senility, physical effort, et cetera.

None of the causes in these four categories may of itself or in combination with others necessarily lead to congestive failure, although it is true that in many instances they might appear to do so.

It would seem that our knowledge is not yet complete in this condition.

Vicious Circles

That one or more vicious circles might develop to lead to a common end would appear probable. The beneficent effect of digitalis through improving myocardial systole would seem significant; but, the fact remains that it is not always effective although the cardiac rate may be reduced and the minute volume of blood flow brought to amounts which are quite adequate to maintain the circulation without congestive failure under other circumstances.

A profound derangement of the circulation not only affects the cardiovascular system itself but also the function of many organs any one of which may still further dislocate the fine circulatory adjustments and so perpetuate a vicious circle. To get a clear-cut experiment is difficult.

Beri-beri.—Perhaps the closest to this in the present problem is to be found in the wet form of beri-beri. But this may not be as simple and direct as at first sight it may appear. The work of Soma Weiss and his associates who demonstrated that congestive failure occurred in this country in cases where the usual causes were absent, and that there was an increase of the bisulphite binding substance in the blood of these patients and that they improved or were cured with vitamin B therapy, was most significant, as pointing to the probability of unrecognized beriberi being present in the temperate zone of this continent. They further demonstrated in a number of cases supposedly due to one of the recognized causes of congestive failure that the bisulphite binding substance was also increased in spite of no direct proof of a vitamin B deficiency in the diet. We have been able in general to corroborate their findings. This opens up an intriguing field for speculation and further investigation.

Engorgement of Hepatic Vein.—It is a well known observation that enlargement of the liver is almost constant in congestive failure. The latter may be slowly progressive or be an acute episode when tricuspid regurgitation occurs, the anatomical changes ranging from the so-called "nutmeg" liver to "cyanotic atrophy." This would suggest the possibility of some functional hepatic impairment.

Engorgement of the entire intestinal tract is also a common anatomical finding. This is to be expected when one realizes that the increased pressure in the hepatic vein is transmitted to the portal system through the hepatic capillary bed. It would seem important, therefore, to investigate what influence such a circulatory disturbance would have upon the functional efficiency of these organs.

The problem is not as simple as might appear at first sight. The functional tests applicable to our problem depend to a large degree upon a proper rate of blood flow through these tissues as well as in body as a whole. The approach to the problem has been indirect, of necessity, in some instances. This has been particularly so in the investigation of the intestinal function. Unfortunately our methods for this are restricted as to its finer quantitative details in relation to the function of time. There has been as yet no evidence obtainable from the contents of the feces that there is a gross impairment of carbohydrate, protein, fat or mineral absorption. I wish to outline today the results of some investigations along these lines.

It must be emphasized that congestion failure is quantitative and the resulting disturbances should be expected to be likewise.

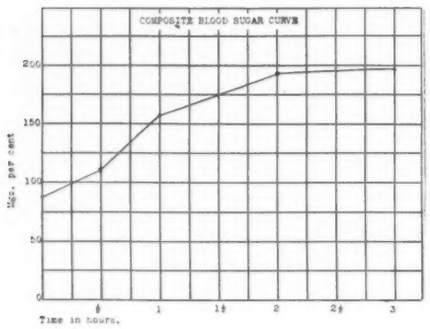


Fig. 1. Composite blood-sugar curve.

the opposite one at short intervals (Fig. 2). The initial rise is fairly constant although occasionally it may be found higher than normal. The

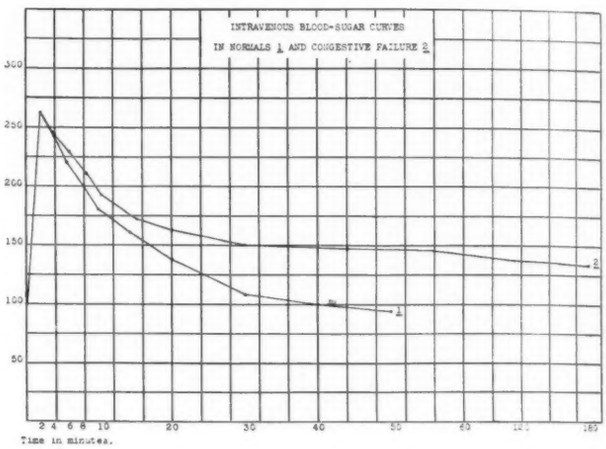


Fig. 2. Intravenous blood-sugar curves in normals (1) and congestive failure (2).

Laboratory Findings

Blood Sugar Curves (by mouth).—These were carried out in the usual manner by the ingestion of 100 gms. of glucose, after a fast of more than twelve hours, and the blood sugar was determined at regular intervals thereafter. These curves revealed a characteristic form. In distinction to the normal curve there was a slow rise and a prolonged plateau. In Figure 1 is found a composite curve from ten cases. The general contour, if outlined separately, is similar in all. They would suggest in the delayed rise either a slow absorption by the intestines or a rapid storage by the liver in the initial stages. The prolonged plateau would, on the other hand, suggest some hepatic difficulty in this regard.

If the suggestion that the first feature were due to an intestinal defect it would be open to debate as to whether this is a truly local functional impairment or the result of a slow portal blood flow.

It would seem too pronounced to be altogether due to the latter. For the moment the interpretation must be left in abeyance.

Blood Sugar Curves (by vein).—These curves were obtained by injecting, during two minutes, 100 c.c. of 20 per cent glucose saline into the anticubital vein and withdrawing blood from **prolonged elevation of the blood sugar would point to impaired glucose storage in the liver and would support the interpretation given to the plateau in the oral blood sugar curves.** A secondary rise sometimes found in these intravenous curves still awaits an interpretation.

Galactose Liver Test.—The value of the galactose test for liver function has been given considerable credence by some. Like all functional test it has its limitations and its specific interpretation for hepatic function must be considered in the light of the condition of the whole intestinal-hepatic system. In the present investigations it has been found that the results would indicate a superlative hepatic efficiency. The test was carried out in the usual manner as follows: 40 gms. of galactose was ingested after a twelve-hour or more fast and the amount of galactose excreted in the urine over the following five hours was then determined. If this amount was greater than 3.0 gms. it was considered as indicative of deficient hepatic function. There are, however, two important factors in this test; first, the rate of absorption by the intestines and secondly, the capacity of the liver to convert galactose into glycogen. The latter is the basis of this test as an index of hepatic efficiency, but it does not take into consideration the rate of absorption by the intestinal tract. It has been shown that galactose is absorbed at a slower rate

than is glucose and the peak of its concentration in the portal blood is the determining factor in estimating hepatic function. If through delayed rate of intestinal absorption its concentration does not reach a certain level the load on the liver is not sufficient to tax the latter's capacity of forming and storing glycogen. Under normal conditions it finds that more difficult than the similar conversion of glucose. The amount of galactose excreted in the urine during the five-hour period has been much less in all instances than would be expected under normal conditions. In many instances it amounted merely to a trace. These results would, therefore, indicate in the first instance slow intestinal absorption rather than impaired hepatic function, although this may be present but it has not been sufficiently taxed by this test.

These results would substantiate the suggestion deduced from the slow rise in the blood sugar following the oral glucose curve —namely, that there is slow absorption of the sugar by the intestine. Therefore, this would modify its value as an indicator of the hepatic capacity to convert it into glycogen.

Protein Metabolism.—Apart from finding an excessive amount of protein nitrogen in the feces there is no test available at present which would indicate impairment of intestinal absorption of these substances. The liver, however, has a number of functions in regard to protein metabolism which are of considerable importance.

(a) *Total Plasma Proteins.*—The importance of the osmotic pressure of the plasma proteins, especially the albumin fraction, in the maintenance of the fluid equilibrium between the blood and the tissue spaces is well recognized. The reduction of the plasma albumin in association with edema in certain diseases of the kidneys, the liver, and in extreme states of biological protein deficiency, is well known. **In congestive failure there is usually a decrease in the total plasma protein which might be explained on the basis of a hydræmia** (average for ten cases —total plasma protein nitrogen 885 mgs. per cent, albumin fraction 498, and globulin fraction 357 mgs. per cent) if it were not for a relative and often absolute increase in the globulin fraction and of the fibrinogen (see below). A similar increase in the globulin has been found in cirrhosis of the liver and has been reported as occurring in certain types of sub-clinical avitaminosis. The exact manner of its causation or its significance in the present instance is not clear. We would suggest that it may be an additional indication of hepatic embarrassment.

The Takata-Ara test in diffuse lesions of the liver has been considered by some of considerable specificity. It would appear to depend upon the proportional flocculation of certain globulin fractions in the blood plasma. It has been shown that these flocculation tests can be varied by modifying the relative proportions of these fractions.

A positive Takata-Ara reaction in congestive failure is occasionally encountered which might be taken by its advocates as an indication of a functional disturbance of protein metabolism due to anatomical lesions within the liver.

(b) *Non-Protein Nitrogen and Its Constituents.*—The principal regulation of the total non-protein nitrogen of the blood rests upon the renal function. Some of its constituents, however, are influenced by the liver. In severe hepatic lesions there is an increase in the amino-acid of the blood due to their impaired deamination by the liver, while at the same time in man there is a decrease in the blood urea. These changes are conspicuous only when the hepatic lesion is diffuse and severe.

In our present studies we have found the non-protein nitrogen sometimes reaches a level compatible with a mild degree of renal impairment resultant from decreased renal blood flow, and this also occurred with the urea nitrogen. On occasion, however, the urea nitrogen was conspicuously low. It was difficult to reach any conclusion as to the significance of this finding as it was complicated in most cases by the effects of slow renal blood flow as an integral part of the systemic circulatory disturbance.

The amino-acid nitrogen determinations revealed a conspicuous increase above the normal values of 6 to 8 mgs. per cent. In every case it was above this level and was found as high

as 16 mgs. per cent. The average was 10 mgs. per cent. This finding would again suggest impaired hepatic function.

(c) *Fibrinogen.*—The fibrinogen of the blood is considered by most writers as being principally formed by the liver. Its amount in the plasma may be expressed either as protein (normal, 250 to 350 mgms. per cent) or as nitrogen of 40 to 56 mgs. per cent.

In the cases under present consideration the fibrinogen was constantly increased, the lowest being 391 mgs. per cent (62.5 mgs. of N.) and the highest 672 mgms. per cent (107.5 mgs. of N.). The explanation of this important finding is still elusive.

It is well known that in severe liver damage, as in acute yellow atrophy, the fibrinogen is conspicuously reduced whereas in less destructive but more stimulating lesions it may be equally increased. If we postulate liver damage in the present instance the above findings are paradoxical; but, it must be borne in mind that the quality as well as the quantity of injury is important and also that fibrinogen formation increases along with other plasma globulins in many injurious systemic disturbances. It is also interesting to note that those cases with the highest globulin fraction in the total protein had high fibrinogen readings and greater than the latter could account for.

It has been apparent that the work so far recorded would indicate that in congestive failure there is probably some impairment in the rate of intestinal absorption and also an interference in the normal metabolic functions of the liver. It remains to determine whether there is any corroborative evidence of the latter by more specific tests.

It is not unusual to encounter what has been called a "hæmorrhagic tendency" in cases of severe congestive failure. This must not be confused with the superficial and deep infarctions so often encountered in hypertension which have an entirely different etiology. The correlation of hepatic efficiency, fibrinogen, and prothrombin formation and lately the rôle of vitamin K in this complicated mechanism has only begun to be unravelled. Reference has already been made to the status of fibrinogen.

It remains now to deal with the prothrombin concentration in these cases. Again we are confronted with the relative importance of the absorption of vitamin K by the intestinal tract and its utilization by the liver to produce prothrombin. It is now tentatively held that there is a connection between these two functions. **We have found that in severe congestive failure there is a pronounced reduction in the prothrombin content of the blood.** Furthermore, it is as in the other functional tests proportionate to the degree and duration of the congestive failure. It is not unusual to find a prothrombin content of twenty per cent of normal increase to eighty per cent or even one hundred per cent as the circulatory failure improves. On the other hand, the administration of vitamin K does not always assist in this restitution. It was found in severe and prolonged congestive failure that vitamin K given either by mouth or parenterally had little or no effect in increasing the prothrombin concentration. This is in conformity with cases of severe liver damage as in cirrhosis and arsenic hepatic necrosis.

This would strongly indicate that in cyanotic atrophy of the liver this function along with others was seriously impaired and would be in part at least accountable for the hæmorrhagic tendency so often seen in these cases and as yet but little understood.

Bilirubinæmia.—In a previous publication attention has been drawn to the frequency of jaundice in congestive failure, especially in acute tricuspid insufficiency with consequent severe cyanotic atrophy of the liver and the bizarre distribution of the jaundice depending upon whether or not edema was present before its occurrence. Explanations have been put forward in an attempt to explain it on other than hepatic grounds but the experimental premises were not comparable. Our continued studies have not contradicted the original contention that this hyperbilirubinæmia was due to a serious change in the internal environment of the liver. It would not appear to suggest that in itself it has much systemic importance except by inference to indicate that the hepatic system was being subjected to a severely abnormal influence which might have repercussions in other directions.

Our present investigations substantiate the contention that the hyperbilirubinæmia is dependent upon a hepatic disturbance and not to other causes as it is present to some degree in all cases of congestive circulatory failure, even in cases without gross pulmonary lesions.

Urobilinogen.—Intimately associated with the hepatic function of bile pigments is that of urobilinogen. Its formation in the intestines and its absorption for conversion into bile pigments is a well known hypothesis based upon considerable experimental and clinical evidence. **The presence of urobilinogen in the urine is considered to be one of the most accurate indications of impaired hepatic function.** The accurate quantitative estimation of this pigment in the urine is fraught with many difficulties, but by meticulous care in collection and technic a fairly accurate estimate of the twenty-four-hour amount excreted can be arrived at. Like the other tests of hepatic efficiency this varies from time to time depending upon the severity and duration of the hepatic damage. We attempted to determine the amount excreted in the stools but this exhibited such irregular recovery estimates that it was found impossible to be certain of the validity of the results. We had an opportunity on several occasions to have well controlled serial estimates of the amount excreted in the twenty-four-hour collection of urine. The accompanying chart (Fig. 3) exhibits an accurate comparison of the day-to-day excretion during a severe and acute crisis of congestive failure. The maximal amount excreted in normal people in 24 hours is 2 mgms., whereas in cases of congestive failure it may reach many times that amount.

Bromsulphalein.—The use of selective dyes in testing the functional secretory power of various organs yields evidence which must be weighed carefully before definite conclusions are justified. Their excretion is not strictly physiological and may be modified by the rate of blood flow in general and through a specific organ in particular. In the present instance this must be particularly stressed. The test was done by the usual method of injecting into a vein 4 mgs. of the dye per kilo of body weight. The percentage concentration in the circulating blood was determined at the end of 10, 20 and 30 minutes by a photo-electric colorimeter. With an ocular colorimeter the dye should normally have entirely disappeared after one-half hour,

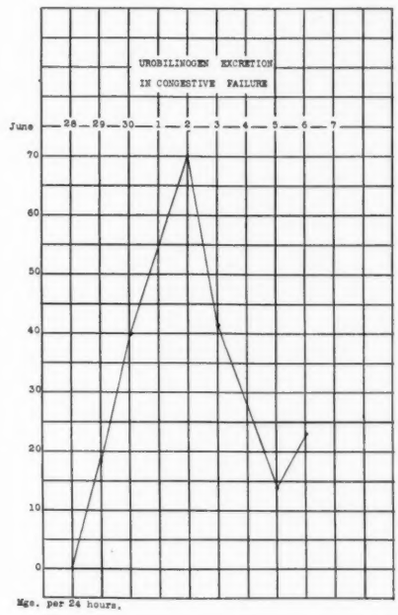


Fig. 3. Urobilinogen excretion in congestive failure.

but with the more accurate instrument a faint trace may be still detected at this time. **In cases of congestive failure the rate of its disappearance is reduced in proportion to the degree and duration of hepatic involvement.** In fourteen cases of severe congestive failure the average amount of dye present at ten minutes was 67 per cent; twenty minutes, 34 per cent, and thirty minutes, 22 per cent*. In cases where the congestive failure had completely disappeared the bromsulphalein returned to normal but in those where congestive failure continued to a modified degree and the liver remained enlarged, the elimination of the dye was definitely retarded in proportion to degree and duration of circulatory failure.

Discussion

The observations outlined above would strongly indicate although not necessarily prove that there is impairment in the function of intestinal absorption. It would appear that this is most likely due to a retardation of the blood flow and anoxia of the tissues resulting therefrom, and

*The concentration of bromsulphalein in the blood soon after its injection has been determined and remains fairly constant in normal people. These figures represent the percentage of this amount. The more efficient the liver function, the lower will be this percentage.

to any anoxæmia from deficient pulmonary function.

The evidence of impairment of liver function is of greater significance. This may be contributed to by the same causes but there is in addition evidence of actual anatomical damage varying in degree from the fatty change in the so-called nutmeg liver to that found in cyanotic atrophy, where the greater portion of the liver has an abnormal environment. The only finding that does indicate a definite impairment of hepatic function is the increase of the fibrinogen. This may be open to a rational explanation which is not now apparent.

The rôle of the liver in the chain of reactions for the proper utilization and function of the vitamin B complex is of great importance. Whereas there are undoubtedly cases where there is an abnormally reduced dietary supply of this vitamin, there are on the other hand cases in which from the history and from observation the vitamin B intake has been sufficient but excessive amounts of pyuric acid have been recovered. It is interesting and important to speculate whether this can have any reflection upon the amount of vitamin B taken up by the intestines or whether the breakdown occurs from the hepatic disturbance or a missing link in the tissue oxidations themselves. The well known accumulation of lactic acid in the blood in severe stages of congestive failure could as readily be attributed to the liver or to the tissues themselves. With our present knowledge it would be unwise to arrive at any final conclusion but it points the way for further study.

The conception of congestive failure as a simple circulatory breakdown of a series of hæmodynamic functions is not satisfactory. There are indications, as I have attempted to point out, which implicate the intestinal and hepatic functions. These are not included in the more obvious signs of disease of these organs but they nevertheless may have a profound effect upon the circulation insofar as cellular oxidations and capillary permeability are concerned.

Additional Therapeutic Approaches

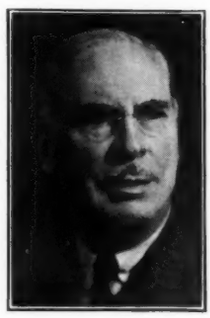
I would suggest three important therapeutic approaches in addition to the accepted treatment of these cases. They are as follows: Thiamin chloride parenterally, especially in cases where the local cardiac findings leave any doubt as to the etiology of the congestive failure; Glucose in high concentration (25 per cent) but in small amounts (50 c.c.) intravenously, especially when flatulence or other gastro-intestinal disturbance is a prominent feature, and Cortin when the blood pressure (especially the pulse pressure) is low.

There would appear to me to be a vicious circle present which is not altogether circulatory nor altogether metabolic but a combination with a variable dominance of one or other in different cases. Therapy is still individualistic in spite of specific remedies and the gastro-intestinal tract and the liver have been too long neglected in this common but still more baffling of medical syndromes.

Sarcoma

Versus Stromatous Endometriosis of the Uterus*

By James R. Goodall, M.D.
Montreal, Canada



JAMES R. GOODALL, M.D.

Professor Clinical Gynecology and Obstetrics (McGill); Gynecologist and Obstetrician to the Royal Victoria Hospital; Consultant (in charge) St. Mary's Hospital (Montreal;) Consultant Gynecologist and Obstetrician to the Homeopathic Hospital.

Of sixteen cases of sarcoma of the uterus that have come under my observation in the last ten years, fourteen of these, upon close study and in the light of better knowledge, have been proven to be interstitial endometriosis, and are still alive and well; the other two are still in doubt, owing to insufficient evidence and to a lack of a follow-up. Undoubtedly, sarcoma of the uterus does occur. One would expect it from the unrest of the organ during its functioning years, but the discovery of interstitial or stro-

*From a paper read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 20, 1939.

matous endometriosis and endometriomata of the uterus has shown that the vast majority of these tumors heretofore diagnosed as sarcoma are really quite benign new growths, as proved by their origin, their mode of invasion, their non-destructiveness, their lack of cachexia, and lastly, and most convincing, their lack of the lethal qualities of sarcoma. For mark well, these fourteen cases are alive and well for periods ranging from two to ten years.

What is stromatous or interstitial endometriosis? It is an invasion of the uterine wall and of the contiguous uterine tissues by the stroma cell of the uterine mucosa.

The endometrium, as you all well know, is made up of two specific types of cells, specific in the sense that they are found in the uterus and nowhere else, and specific in that they have a special definite function. These two cells are the interstitial cell and the gland cell. The relationship of these two structures is not fully known. Is the stroma cell the progenitor of the gland, or is it merely a foundation for the support of the glands? These are questions which cannot be answered convincingly at the moment. But opinion and research incline to regard them of different origin, non-interchangeable and of different functions. I think I may state definitely owing to my studies, that their origin is from basically different structures at a different period of embryonic life, and that the stroma cell is not the parent of the gland lining. However, that is not germane to our subject.

Physiology

Functionally, the two cells respond to the hormones which determine the menstrual cyclic change, but in quite a different way. The glands become hyperplastic and seem to spend all their energy in division during the follicular stage of the ovary, to be superceded later by hyperfunctional characters in the luteum stage of the sex organ. Whereas, the stroma cell, which heretofore has been a neglected cousin, has a much less conspicuous rôle. Its cells enlarge and proliferate during the follicular stage and range themselves into three layers; the basal, the spongey, composed of an open network of glands, and the superficial compact layer, composed largely of stroma cells. The superficial layer takes on decidual change just before menstruation sets in, and is known as decidua menstrualis. The later changes are due to vascular regression and are destructive in character. All this is a preparation for, and regression after lack of, impregnation. The object of enumerating these changes is to show that the specific cells of the endometrium are in a constant state of flux during the whole of the sexual life, and that they are the victims of the ovarian hormones. Now, we know that every function of the body is under control of something else, and that something else is usually a hormone; and that these are subject to exaggeration or to depressed output, by a legion of causes which operate from within and without, and we must understand that all gland aberration is in the nature of an accommodation to a change in environment, and whether that change is in the remote environment or in the immediate internal milieu surrounding the cell, is a matter of degree and not of specificity. Excessive or deficient action of the glands which control function are the two specific ways in which they modify their influence. The uterine wall, as distinguished from the endometrium, has three component tissues. They are muscle, connective tissue including elastic tissue, and endometrial stroma cells. It is impossible to state at present how much and to what depth the stroma cells of the endometrium normally pervade the uterine parietes. But in a vast majority of cases in the sexual age there is a diffuse ramification permeating between the muscle bundles into finer and finer branches as one recedes from the basal layer of the endometrium.

Pathology

Under abnormal endocrine conditions the specific endometrial elements pervade the uterine wall to a definitely pathological degree, and this pervasion may be, and usually is, composed of both stroma and glandular elements, or (and this is our chief interest) it may be composed of stroma cells only. This is where it has been indistinguishable from sarcoma of the uterus. When both endometrial elements (mixed endometriosis) invade the uterine wall, these may function simultaneously with and

similarly to the normally situated endometrium in response to the menstrual cycle, so that we have a distinguishing gross feature. But the stromatous invasions never respond to the menstrual cyclic changes, so that in this also their resemblance to sarcoma is enhanced.

Stromatous invasions of the uterine wall may be diffuse and without loss of uterine symmetry, or they may be local, giving rise to a definite tumor, causing loss of symmetry and bimanually closely simulating fibroma, for which they are almost invariably mistaken.

The invasion extends along the lymphatic channels, between the muscle bundles of the uterine wall, and even in their most rapid forms of growth, though they invade the lymphatic and venous channels, they do not destroy, but merely crowd the other tissues aside to make room for the guest. The lymphatic linings are mostly intact, even though the lumen be filled with an insinuating growth. The same applies to the venous vessels, though venous is much less common than lymphatic invasion.

When the endometrial growth worms its way along a vessel, whether lymphatic or venous, it usually carries its own blood supply. In the diffuse types (stromatous endometriosis) the growth may pervade the whole depth of the uterus and invade the lymphatics of the broad ligament, and by direct continuity, extend slightly beyond the pelvic limits.

The new growth may give the lymphatics of the broad ligaments the appearance of thick ropes extending to the pelvic wall, and on opening the invaded channels, one can roll the growth out as a worm from its bed.

The type of component cell is that of a small round-celled sarcoma. But the blood vessels are the normal thick-walled vessels of the invaded tissue, or thin-walled vessel associated with the invading tissue, and as the growth does not destroy, but merely pushes fixed tissues aside or surrounds them, these different types of vessels are often in close approximation. In the local forms of this growth (stromatous endometrioma) the tumor may form a definite mass with extensive roots at its periphery and without defining capsule. In the more chronic types a capsule is formed both by compression of the surrounding tissues, and by concomitant growth of these tissues under the common growth stimulus. Depending upon the chronicity of the growth, the component cell may vary from a small round-celled type through the spindle type, to that approaching the component cell of a richly cellular fibroma. They are frequently multiple, of varied sizes and may occupy any site in the uterine wall.

At times the growth is restricted entirely to the mucosa of the uterus. Under these circumstances the mucosa is greatly thickened, almost devoid of glands and is prone to develop more rapidly in places to form polypi. Tissue of this nature obtained by curette has almost invariably been diagnosed as sarcoma, and in the lesser forms as an interstitial endometritis.

We do not know what causes determine an interstitial cell proliferation to pervade the uterine wall in one case, and to grow into the uterine cavity in another, any more than we know what may cause an epithelial growth to grow as a surface papilloma in one case, and as an invading carcinoma in another. In the more chronic forms of stromatous endometriomata, there is frequently an accompanying mixed endometriosis of the extra-uterine appendages and contiguous pelvic tissues, and in about 30 per cent of cases there are accompanying fibromata and fibromyomata. The extra-uterine endometriosis, giving rise to nodules in the pouch of Douglas, is a valuable aid to a correct clinical and pathological diagnosis. The presence of the fibroids and myomata, and the general hypertrophy of the uterus which accompanies any form of the uterine wall endometriosis are a response of the component cells of the uterine wall to the common stimulus of the abnormal hormonal influence.

Ectopic endometrial invasions of tissues may or may not respond to the hormones of the menstrual cycle. Those invasions that are composed of the two specific elements of the endometrium, namely stroma cells and glands, may or may not respond. This depends upon extrinsic and intrinsic factors of the ectopic growth. Among these are location,

soil, organ-host, vascularity and quantum of hormonal stimulus. Ectopic endometrial growths, composed exclusively of stroma, never respond appreciably to the menstrual influences.

Parietal endometrial invasions of whatever kind, but especially of the stromatous types, are usually only the most obvious expressions of the abnormal stimulus. In all the cases of stromatous invasion of the uterine wall, one finds other parts of the genital canal responsive to the same cause, only in a lesser and less striking degree. In a very large percentage of cases one finds hypertrophic responses in the nature of cystic occlusions, hypertrophy, polypi, ectropion, adenomatous invasion of the cervix, and precancerous (so-called) changes in the cervical epithelium. I have already mentioned the frequent association of pelvic endometriosis, fibroids and myomatous growths with uterine endometriosis.

It may be seen from these case histories* how difficult it may be to differentiate these growths from sarcomata. That all my cited cases were diagnosed as uterine sarcoma is not surprising. But the closer study of these cases with our increased knowledge upon the subject, together with a study of the follow-up system, makes it inevitable that we change our diagnosis for a much more favorable one.

Most encouraging is the fact that all the cases are alive and well from two to ten years after operation—a result inconsistent with sarcoma. Moreover, the connection of these growths with the endometrial stroma, and their propagation from this source leaves the matter no longer in doubt.

What Is the Cause of Ectopic Endometrial Growth?

In endeavouring to answer this question we pass from the factual to the hypothetical. However, the speculative in medicine is always filled with romance, and Heaven knows, medicine has been sheared of most of its romance.

The philosophical precedes the scientific in all branches of study. We do know that the ovary, if not the primary, is at least an essential intermediary for the functioning of the endometrium. Menstruation ceases with the removal of the ovaries. We know equally well that the ovary is almost essential for the continued growth of ectopic endometrial tissue. The cases on record of continued or renewed growth of endometriosis are very few indeed in the literature. However, they do occur, as already reported by myself —a case that recurred with extraordinary virulence seven years after double ovariotomy and a full course of deep x-ray. We know equally well that with but two exceptions, the disease is limited to the zone of ovarian influence. The hormone of the ovary which would seem to be the culpable agent, is the growth hormone, estrin, or one of its derivatives. How does it operate? Estrin causes great thickening of the endometrium by a multiplication of its cells, during the maturation of the ovarian follicle. Progesterone, on the other hand, is the maturation principle of the endometrial function, causing the endometrium to become succulent preparatory for nidation. In the intermediate stage, after rupture of the follicle, one finds a diminishing effect of estrin and increasing effect of progesterone as maturation of the corpus luteum proceeds.

If endometriosis is the result of an excessive action of estrin, this excessive action may be brought about by one of two means. It may imply an excess of estrin in the blood, which ought to be measurable. But we do know that the amount of estrin in the blood may vary within very wide limits without producing appreciable physiological or pathological results. We have a close analogy in the sugar content of blood. One has to take into account the individual susceptibility in each case. But we do know also, that estrin can be retained in the tissues in large quantity, and is not liberated except by a liberal supply of progesterone. Could it not be, then, that endometriosis is due to a lack of progesterone, causing undue and prolonged action of estrin in the endometrial cells, for the endometrial cells are thought to be the repository of oestrin retention? Be that as it may, we must recognize that the ovarian function plays a very prominent rôle in endometriosis. But how can we explain the continued growth or renewed activity of the endometriosis after double ovariotomy?

*For further particulars of cases I would refer my readers to the article on "Interstitial Endometriosis" in the Transactions of the American Association of Gynecologists, Obstetricians and Abdominal Surgeons of 1938, and to the article under similar caption to appear shortly in the *Journal of Obstetrics and Gynecology of the British Empire*, or again to my monograph on "Endometriosis" just approaching completion.

Nature seldom trusts the permanence of the species to any essential function entrusted to a single gland. The glandular system possesses a vicariousness that is unknown in any other corporeal function. Substitutive function is an interesting feature of endocrinology. The glands of internal secretion are like a group of banks coöperating for mutual protection, and individual or collective help is always at hand.

Fatigue in a gland can be temporarily remedied by assistance by adjuvant glands, but exhaustion of the reserve of a gland eventually entails exhaustion of the subsidizing glandular systems. It is known that there is not only coöperation by substitution of function, but there is also cooperation in the nature of restraint of function. For example, there is a direct antagonism between thyroid and ovarian function, and it is within the experience of every clinician that ovarian function is inhibited in hyperthyroidism, frequently to the degree of causing arrest of menstruation, and that hypothyroidism is chiefly accompanied by menorrhagia and metrorrhagia, which are merely expressions of vitiated ovarian function. What, then, can substitute for the absence of the ovaries in a case of ovarian ablation? Primarily, it is not due to accessory ovaries, because in one of my cases, total ablation was followed immediately by a heavy course of deep x-ray, and renewed activity of the endometriosis did not occur until six and a half years after operation. Prolan A, of course, would come into question, and I think all are agreed, that, though Prolan may be the stimulating cause, it cannot of itself supply the estrin except through the intermediary of some other organ. We do know that the suprarenal can act as a substitution organ for the products of testicular and of some of the ovarian hormonal products, but I also believe that endocrinologists are not prepared to admit that the adrenal can produce vicariously the true ovarian estrogenic substances. This is a subject full of interest, but as yet inconclusive. That estrin is produced by a substitute organ, if estrin be the cause of endometriosis, cannot be gainsaid. Estrogens are chemically very closely allied to the carcinogenic tar substances, and one naturally asks, if associated with endometriosis of the pelvis one so commonly finds overgrowth and precancerous conditions of the cervix, whether endometriosis itself is not productive of cancer.

And right here is a contradiction, for though on microscopic and clinical grounds, one would assume that endometriosis would readily pass over into a true malignancy, yet virtually most of the cases of malignancy with endometriosis have been shown to be an accidental association of two diseases. Stromatous endometriosis is non-malignant, and is not destructive of tissues or of life. Endometriosis is inhibitory to pregnancy.

In my fourteen reported cases there was barrenness or sterility for a period of at least fifteen years. Endometriomata migrate in the uterine wall in a manner similar to that of fibroids. Eventually in their migration they become subserous or submucous, at first sessile, later pedunculated. Intra-uterine polypoidal endometriomata are not uncommon. At times, tumors necrose and are shed.

Treatment

Stromatous endometriosis is a new growth, assuming all degrees of rapidity of division and various degrees of cell embryony. Being closely dependent upon ovarian function for continued growth, removal of both ovaries or mechanical devitalization of these organs, generally brings about a quick regression of the endometriosis. In women approaching the menopause such a procedure, whether it be surgical or by deep x-ray or by radium, is an easy and effective means of overcoming the disease. But endometriosis unfortunately occurs in any of the years of sexual activity and, when confronted with a case of stromatous endometriosis in a young woman or girl, one is confronted with a serious combination of circumstances. Though we know that ordinary endometriosis, composed of both cellular elements of the endometrium, very often regresses spontaneously, one cannot state with the same assurance what is the course of stromatous endometriosis. The number of cases under study has been too few to warrant any conclusions to be drawn in respect of their course. We do know, as outlined in my work, that spontaneous degeneration frequently occurs, but whether this is merely a liquifaction due to local vascular derangement, or whether this is the initial step to

a complete cure, would be hazardous even to venture an opinion under present circumstances.

There is another inhibitory factor to a discriminating treatment, and that is that the diagnosis of interstitial endometriosis and endometrioma is seldom made except at operation, or by biopsy, so in the majority of cases one will have completed one's operation under a temporary false diagnosis, or the treatment by radium or x-ray will have been carried out under a permanently false diagnosis.

At most, one can state that stromatous endometriosis and endometrioma is a new disease and will require a great deal of painstaking study of large numbers of cases before one can be dogmatic as to its cause, course, and end-results.

Potassium Chloride In Allergy

A Report of One Hundred Seventeen Cases

By Ferris Smith, M.D., and W. H. Steffensen, M.D.

Grand Rapids, Michigan

FERRIS SMITH, M.D.

M.D., University of Michigan Medical School, 1910. American Academy of Ophthalmology and Otolaryngology. F.A.C.S. Member of American Board of Plastic Surgery, Consultant Departments of Otolaryngology and Plastic Surgery, Blodgett Memorial Hospital, Grand Rapids. Member, Michigan State Medical Society.

W. H. STEFFENSEN, M.D.

M.D., University of Michigan Medical School, 1931. American Academy of Ophthalmology and Otolaryngology. F.A.C.S. Diplomate American Board of Plastic Surgery. Attending Staff Blodgett Memorial Hospital, Grand Rapids. Member, Michigan State Medical Society.

THE advent of the use of potassium chloride provided us with a means of attempting a simplified form of relief for sufferers with various allergic disorders. The results are amazing.

The average dose has been ten grains (0.65 gm.) in a full glass of water three times daily, after meals. Patients were requested to report by telephone or letter forty-eight hours after beginning the treatment. The only ill effects our patients experienced were nausea and abdominal cramps in a few cases. A number of failures in our early experience were reduced materially upon advice from Benson Bloom to increase the dosage to fifty or sixty grains daily in those cases which failed to respond favorably.

Results

Hay Fever

Twenty-six patients with a known pollen rhinitis were treated throughout the hay fever season.

Complete relief	9
Improved	15
Unimproved	2
Total	26

Food Allergy

Seventeen patients manifesting a typical allergic rhinitis and with a known sensitivity to one or more foods comprise this group.

Complete relief	5
Improved	9
Unimproved	3
Total	17

Mixed Allergy

This group consists of fifty-one patients who were definitely sensitive to a combination of foods or pollens and other extrinsic allergens.

Complete relief	7
Improved	32
Unimproved	5
No report	7
Total	51

Allergens Unknown

Eighteen patients who had the typical clinical and laboratory findings of allergic rhinitis but with no definitely known allergens were treated empirically.

Complete relief	1
Improved	9
Unimproved	3
No report	5
Total	18

Migraine

Four patients who had definite migraine and whose attacks were precipitated by known foods were treated with potassium chloride. Two obtained complete relief from their headaches and could eat the foods which offended them without precipitating an attack. One patient considered his symptoms greatly relieved and the fourth patient obtained no relief.

Meniere's Disease

One patient with Meniere's disease has been taking potassium chloride continuously for over seven months and has not experienced an attack, except the week following an attempt to reduce his daily dosage from 30 grains to 20 grains.

We have observed the diminution in size of polypi in many instances, but have never seen them completely disappear. One case of chronic asthma, which was classified in Group 3 and one chronic asthmatic in Group 4 were among the failures. They experienced no untoward results from the use of the medication.

Comment

We possess no knowledge of the chemical action of potassium salts in the body. Bloom and others have emphasized the importance of an altered electrolyte metabolism in endocrine disturbances. Many of the cases with nasal findings suggesting allergy, but who knew of no definite allergens causing their symptoms, were studied and found to be hypometabolic. It is our experience that many patients with allergic symptoms have a low metabolic rate. We hope to present definite statistics on this observation in the near future.

Conclusions

1. A series of 117 cases of allergic rhinitis and allied allergic or questionable allergic disorders were treated with potassium chloride.

2. Potassium chloride seems to offer to the victim of allergic rhinitis and many allied allergic disturbances complete relief in many instances and improvement in a large percentage of cases.

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Comments editorially on "Urolithiasis from Sulfapyridine" using as a basis articles by Antopol and Robinson; Gross, Cooper and Lewis, and Keen indicates that this may be a common sequela. The editorial raises the question: "Complications of such gravity following the use of any drug warrant serious consideration. There comes to mind the glowing reports of the efficacy of dinitrophenol in obesity and the wave of cataracts that followed its use. Does it not seem advisable to advocate restraint in the use of sulfapyridine in such cases as do not respond to other proved forms of treatment? Is it advisable that the expectation of the 'crisis' be shortened from seven days to one and then turn a medically sick patient into a potential surgical risk?"—*New York State Journal of Medicine,* (Feb. 15, 1940).

Migraine

Treatment with Chondroitin

Glenn E. Drewyer, M.D.
Flint, Michigan

GLENN E. DREWYER, M.D.

M.S., M.D., Northwestern University Medical School, 1930 and 1932, respectively. Instructor in Physiology two years, Northwestern University Medical School. Member of Genesee County, Michigan State and American Medical Associations. On the Staffs of Women's, Hurley, and St. Joseph's Hospitals in Flint, Michigan.

■ IN private practice I had observed a number of migraine victims who were difficult to control, and was interested in the report of Crandall, Roberts, and Snorf[1] on the effectiveness of chondroitin. This substance has the advantage that it can be given orally, it is a preventive treatment rather than one directed toward the control of individual attacks, and according to the available data[1] it offers at least as good and perhaps better prospects of relief than any means of preventive therapy now available. I have therefore studied the action of chondroitin in a series of patients complaining of severe forms of migraine or idiopathic headache of the migraine type. Many of these had been receiving calcium, thyroid, emmenin, or theelin as preventive medication and ergotamine tartrate or pituitrin for specific attacks prior to being placed upon chondroitin therapy. A total of fifty cases had been collected. Of these, thirty have been under treatment with chondroitin for more than six months and it is believed that their response can be definitely classified; the majority of them have been receiving chondroitin for more than one year, the maximum being three years. In the great majority of these patients the severity of the attacks was such as to incapacitate the patient completely and their frequency was once a week or more. In such severe cases the total time lost by the patient is a serious handicap.

The twenty patients who have been on treatment for less than six months are not reported in detail because it is not believed that definite conclusions can be drawn from shorter periods. This is in part due to the well known tendency of the migraine patients to respond by temporary improvement to any change in therapy. The responses of these twenty cases, however, are in all respects similar to those of the individuals who have been followed over longer periods.

Diagnosis

The diagnosis of migraine has been reserved for those patients exhibiting substantially all of the classical features of this condition, namely, periodic unilateral headache preceded by prodromata and accompanied by nausea and vomiting, and with a history of migraine or sick headache in the immediate family. Patients with attacks resembling migraine but not presenting all the typical characteristics, have been classified as having idiopathic headache.

Treatment

Chondroitin* has been used in the form of capsules containing 0.6 grams, and four such capsules have been given three times daily after meals as recommended by Crandall *et al.* A number of the patients who have been much benefited have now taken this material daily over periods of more than two years; this can be stated with confidence since the chondroitin has been dispensed by the writer to patients in private practice who have been glad to purchase it for the relief obtained. This fact alone, namely, the willingness of private patients to continue the use of the material at their own expense and over long periods of time, is perhaps the best evidence of its effectiveness. Ergotamine tartrate orally and parenterally, calcium salts orally, and pituitrin parenterally, have also been used by the writer during these year. In agreement with other investigators, I have observed that attacks may commonly be aborted by ergotamine tartrate intramuscularly, but this drug has not succeeded in reducing the number of attacks when given daily by mouth.

Summary

A series of thirty cases of migraine and idiopathic headache have been under treatment with chondroitin for periods of six months to three years. Of these 67 per cent have been completely relieved of their symptoms, 13 per cent have been partially relieved, and 20 per cent are failures. Among the failures those with true migraine were often relieved by ergotamine tartrate intramuscularly.

Twenty other cases have been treated with chondroitin for six months or less, and the results so far closely parallel the first series; however, the period of observation has been too short to include them in this report.

TABLE OF RESULTS

	Number of Cases	Relief Complete	Partial Relief	Failure
Migraine	16	11	1	4
Idiopathic headache..	14	10	2	2

Conclusions

The action of chondroitin has been studied on thirty private patients presenting themselves with either migraine or idiopathic headache. I believe it is a valuable adjunct in the therapy of prevention of these types of headache.

EDITOR'S NOTE: The use of Chondroitin is still considered in the experimental stage by the Council of Pharmacy and Chemistry of the American Medical Association.

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1110 Union Ind. Bk. Bldg.

*Manufactured by Wilson Laboratories, Chicago, Illinois.

Clinical Roentgenology

of the Gall-bladder*

By Clarence E. Weaver, M.D.
Detroit, Michigan

CLARENCE E. WEAVER, M.D.

M.D., George Washington University and Detroit College of Medicine and Surgery, 1917. Member of the Michigan State Medical Society, the Radiological Society of North America, the Michigan Association of Roentgenologists, and the Detroit X-ray and Radium Society. Fellow of the American College of Radiology and Diplomate of the American Board of Radiology.

■ THE purpose of this paper is to report briefly on our experience with x-ray examination of the gall-bladder by the Graham method over a thirteen year period. We wish to prove the reliability of the method, to call to your attention some of the errors to be avoided, and to discuss some of the clinical aspects of the problem with special emphasis on the necessity for a complete examination of the patient. To establish the fact that a patient has disease of the gall-bladder is not difficult, but to correctly conclude that the gall-bladder pathology is responsible entirely for the symptoms of which that patient complains

*Read before the Wayne County Medical Society, March 20, 1939.

is a much more complex and important problem. Limiting our examination to a single organ to test a clinical deduction is unsound practice. A complete examination is necessary and we urge the coöperation of the clinician and roentgenologist to that end.

Technic Used

We have used the oral method of administering tetraiodophenolphthalein entirely. The patient is given 5 gm. of iodeikon. This is taken in one dose in a half glass of grape juice immediately after a fat free evening meal, the night preceding the x-ray examination. He is told to lie on his right side for half an hour after ingestion of the dye. This hastens emptying into the duodenum and reduces nausea. The patient takes a cleansing enema the following morning, and reports fasting between ten and eleven A.M. Vomiting seldom occurs after taking the dye. When it does occur there is no interference with the examination unless it happens immediately after ingestion. We repeat the examination in those who have vomited and no shadow of the gall-bladder is obtained. We have rarely found this necessary. Films are made to include the right side of the abdomen from the tenth rib to a point well below the iliac crest, as the gall-bladder may be found anywhere within these limits. An oblique view is also made with the right hip and shoulder elevated. This is important as it sometimes brings into view a gall-bladder which is hidden by the spine. This position also helps to free the organ from intestinal shadows, thereby verifying or disproving the presence of negative stone shadows. We have not used the upright position though we recognize the fact that in an occasional case it may prove of some benefit. After viewing the films the patient is instructed to eat two soft boiled eggs, well buttered toast and a glass of half and half milk and cream, and to return in one and a half hours for a second examination. The normal gall-bladder is usually at least half empty at this time.

To obtain a gall-bladder shadow the dye must reach the liver by the blood stream, the liver must excrete the dye, the cystic duct must be patent, the gall-bladder mucosa must be able to concentrate the bile and the restraining mechanism at the Ampulla of Vater must be functioning. If any of these functions fail, no shadow is obtained.

Causes of slow emptying of the gall-bladder may be reflex disturbance, improper food stimulation, gall-bladder disease such as cholecystitis in which the muscular tunic is incapable of proper contraction, stones blocking the cystic duct as ball-valves, or pericholecystitis with adhesions preventing contraction.[9] We have seen slow emptying in cases of duodenal ulcer, probably due to spasm of the sphincter of Oddi.

Examination of Radiographs

In examining the gall-bladder radiographs one must be careful to avoid misinterpretation due to confusing or extraneous shadows. Some of these are kidney stone, lower pole of the right kidney, quadrate lobe of the liver, loop of small bowel, the duodenal shadow, gas and other intestinal contents, calcified glands, calcification of the costal cartilages, a mole on the skin and the shadow of the gastric antrum. We have occasionally found it necessary to give a few swallows of barium to be able to differentiate a faint shadow of the gall-bladder from the antrum of the stomach. The right kidney shadow is usually well seen. Its size, shape and position should be noted and whether renal calculi are present. There is also an opportunity to note whether any abnormality of the spine of this area exists. Occasionally, we have discovered disease of the lower dorsal spine, which was responsible for the patients complaint, whereas the gall-bladder was found normal. Potter[11] warns of shadows of diverticuli of the hepatic flexure which might be confused with stones in the gallbladder. We seldom feel justified in diagnosing adhesions of the gall-bladder because we have been more often wrong than correct when the patient came to operation. It is well to remember, in this connection, that a rather common congenital anomaly of the gall-bladder known as the "Phrygian Cap" produces considerable deformity, but is of no clinical significance.[1] We have had one case of polyp which was incorrectly interpreted as stone. We have never diagnosed carcinoma of the gall-bladder from x-ray evidence.

TABLE I. LESIONS WHICH MAY BE MISTAKEN FOR GALL-BLADDER DISEASE OR MAY BE CO-INCIDENT WITH IT.

Right renal pathology	Gastric carcinoma
Duodenal ulcer	Diverticulosis of colon
Hypotonic colon with stasis	Hiatus hernia of stomach
Cardiac disease	Gastric crises
Retrocecal appendix	Neurosis
	Arthritis of spine

Sources of Error

Peptic Ulcer.—There is a difference of opinion regarding the effect of duodenal ulcer on the response of the gall-bladder to the Graham test.[5,6,8] In fourteen cases, we have felt it inadvisable to diagnose pathology in the gall-bladder because of the presence of duodenal ulcer. It is possible for a spastic sphincter or duodenum

to prevent gall-bladder evacuation.[5] We think ulcer may produce such a disturbance. We can recall at least two cases in which slow emptying of the gall-bladder was noted in the presence of duodenal ulcer. We feel very strongly that peptic ulcer should always be ruled out as the cause of symptoms in suspected gall-bladder disease. When both conditions appear to be present an ulcer regime should be tried to determine whether or not the patient obtains relief of his symptoms.

Meyers, Sandweiss and Saltzstein[10] report that 11 per cent of 136 cholecystectomized patients had peptic ulcer. Our percentage runs much lower than this but does not offer a true comparison because unfortunately all our cholecystographies have not had simultaneous examinations of the stomach and duodenum. It is our experience that ulcer is more likely to be mistaken for gall-bladder disease than to occur with it. If our theory that ulcer interferes with normal cholecystographic response is correct, then it is possible that a normal gall-bladder might be misinterpreted as the site of pathology although the ulcer is the sole cause of symptoms.[8] Our proven cases of co-incidence of gall-bladder disease and ulcer among our operated series of 461 cases is 1.5 per cent.

TABLE II. DIVERTICULOSIS OF COLON WITH GALL-BLADDER PATHOLOGY.

Cases with diverticulosis	119	
Cases with diverticulosis and gall-bladder pathology	29	24.4%
Cases with diverticulosis and normal gall-bladder	23	19%
TOTAL cases in which both organs were examined	52	44%
Incidence of gall-bladder disease in cases where both were examined		55.7%

Diverticulosis.—We have been impressed with the high percentage of gall-bladder disease in those patients who have diverticulosis of the colon. Of 119 patients with diverticulosis we found 29 who had co-incident disease of the gall-bladder. This is 25 per cent. Fifty-two patients had x-ray of both the gall-bladder and the colon. Of these, almost 56 per cent had co-incident diverticulosis and gall-bladder disease. The relationship here is not clear but may be explained partly by the fact that both conditions are prone to occur in the same type of individual.[12] We incline more to the belief, however, that infection from the diverticuli is carried to the gall-bladder and liver by way of the portal system. A good number of our cases were not of the habitus usually thought to be associated with gall-bladder disease and diverticulosis. Our experience indicates that in a patient with diverticulosis of the colon there is a little more than a 50 per cent chance that cholecystitis is also present.

Other Diseases.—On account of the relatively high incidence of gall-bladder disease, one must be careful in attributing the patients symptoms to this condition when it is discovered by the x-ray examination. The Roentgenologist must accept his share of the responsibility in this matter. He should remember that he is examining a patient and not merely x-raying a gall-bladder. We have found stone in the right kidney and ureter, hydronephrosis, appendiceal pathology, duodenal ulcer, colonic pathology, gastric carcinoma, Banti's disease and cardiac disease accompanying evidence of cholecystitis. We have many times found a normal gall-bladder in patients suspected of disease of this organ and have found the true pathology to be ulcer, gastric carcinoma, colitis, markedly redundant colon with stasis, retrocecal appendix, right renal disease, pathology of the spine, hiatus hernia of the stomach, gastric crisis and neurosis. Removal of the gall-bladder in such cases is likely to be followed by a high postoperative morbidity. For this reason we have tried to be conservative in diagnosing disease of the gall-bladder on the x-ray films.

Dependability of X-ray Examinations

TABLE III. OPERATED CASES

Total number operated	461
Diagnosed pathological	370
Diagnosis confirmed	361
Diagnosis not confirmed	9
Diagnosed normal	91
Diagnosis confirmed	72
Diagnosis not confirmed	19
Percentage of error for pathological diagnosis	2.43%
Percentage of error for normal diagnosis	20.8%
Percentage of error for entire group	6.07%

In 461 cases that have been operated upon, the x-ray findings have been confirmed in 94 per cent. Diagnosis of gall-bladder disease has been confirmed in 97.5 per cent. The diagnosis of the normal organ has proved correct in only 80 per cent of those operated upon. Our experience has taught that when we obtain no shadow after administration of the dye we can be sure that there is gall-bladder disease. Of course, technical errors and pyloric obstruction must be ruled

out. The presence of calculi also is positive indication of disease. Gall-bladders which show very faint shadows and inability to empty properly are most always pathological. Those which are greatly increased in size have been proven to be the site of disease also. The case of the fair shadow with fair or good emptying and without stones is the most difficult problem. We tend to call these normal and search for other pathology to account for the symptoms. Check-up examinations after medical management are suggested.

It has been the experience of numerous observers that cholecystectomy for calculus gall-bladder disease has given the best postoperative results.[2,4,7] In general, the end results tend to be better as the pathological changes become more marked. We have not felt justified in attempting to state that a gall-bladder is diseased because it exhibits some minor variation in function from that which is thought to be normal. We have been content to err occasionally on the side of conservatism.

Conclusions

1. X-ray examination of the gall-bladder has given us accurate information as to the condition of this organ in 94 per cent of 461 operated cases.

2. The diagnosis of normal gall-bladder has proven the greatest source of error as normal function occurs occasionally when disease is present.

3. Duodenal and pyloric ulcer may interfere with the cholecystographic response.

4. Many conditions can simulate gall-bladder disease.

5. Unrelated lesions often accompany disease of the gall-bladder and it must be determined if possible, whether such lesions might not be the principle cause of symptoms.

6. As removal of the non-calculus gall-bladder is much more likely to be followed by post-operative morbidity than when stones are present, we make a plea for the complete examination of the patient so as to properly evaluate the extent to which such a gall-bladder contributes to the symptoms.

7. Pathologic changes in the gall-bladder frequently accompany diverticulosis of the colon.

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Rectal Infusion

By Robert E. Reagan, M.S., M.D., and Velma Menchinger, R.N.

Benton Harbor, Michigan

ROBERT E. REAGAN, M.D.

M.D., University of Illinois, 1929. Master of Science in Surgery, University of Illinois, 1937. Member of Michigan State Medical Society.

■ ADMINISTRATION of fluids and relief of abdominal distention are major problems for the physician and the bedside nurse. Distention following abdominal surgery and in medical cases such as pneumonia and typhoid cause the patient much discomfort and is, therefore, of great concern to those caring for the patient.

During the past year we have been using the rectal infusion method for preventing and relieving distention. The method has become quite generally accepted at Mercy Hospital and during the past year it has been used on about four hundred abdominal surgical cases, two typhoids, several pneumonias and on other medical patients.

While comfort of the patient is of paramount importance to the nurse there are other things of greater importance to the physician. One of these, particularly in post-operative cases, is the introduction of fluid to prevent dehydration. Rectal infusion is a simple and efficient way to administer fluid as will be shown later in this paper.

The method which we refer to as rectal infusion is essentially the method introduced by McClanahan in 1921 as proctoclysis by the flush method. Similar procedures have been in use for a number of years under a variety of names. This paper serves only to emphasize the use of a simple and effective method which deserves to be used more widely.

As we have indicated, rectal infusion serves the double purpose of introducing fluids and of relieving abdominal distention. In its use for the introduction of fluids we find that patients will absorb from one to two thousand cubic centimeters of tap water or normal saline solution in the first twelve hours post-operatively, the average being about fifteen hundred cubic centimeters. In the next twelve hours from five hundred to one thousand cubic centimeters will be absorbed. Subsequently the rate of absorption will be determined by the degree of dehydration of the patient. This does not preclude the necessity of administering fluids in other ways but by using this method a moderate amount of fluid is absorbed while at the same time abdominal distention is relieved. For the first two or three days post-operatively the addition of fluid is the primary virtue of this procedure, after that it is used for the relief of distention.

Method of Procedure

The equipment needed for rectal infusion is very simple, consisting of an enema can, a No. 20 or No. 22 colon tube and a short glass connecting tube. The glass connecting tube makes it possible to determine the character of the return flow. We use tap water in most of our cases since normal saline or 5 per cent glucose do not seem to be as readily absorbed as tap water. Alkaline solutions seem to be even less easily absorbed. Hypotonic solutions are more readily absorbed than isotonic or hypertonic solutions.

A cleansing enema should be given and repeated until the water returns clear. The usual preoperative enema should suffice. The colon tube is then inserted six to eight centimeters into the rectum. The enema can, containing five hundred cubic centimeters of tap water is placed on a level with the patient's buttocks and the water allowed to flow continuously, without obstruction. If the water is being absorbed too slowly, the container may be elevated until the patient complains of pressure and then be lowered slightly. All that is needed is elevation sufficient to overcome the hydrostatic pressure of the colon. Increased pressure on mucous membrane does not increase absorption and does cause discomfort. In former methods of proctoclysis by drip or retention enemas patients were frequently uncomfortable because of the feeling of pressure in the rectum. This need not occur with rectal infusion.

When the procedure is used primarily for the relief of distention not more than five hundred cubic centimeters of fluid should be used and the container must be raised and lowered once or twice and then placed on a level with the patient's buttocks. **Flatus will be expelled easily without having to overcome the resistance of t e rectal sphincter and will be replaced with fluid, which is later absorbed. We have found that medication for relief of abdominal distention, such as pitressin and prostigmine, is much more effective if administered during rectal infusion.**

The procedure is well tolerated, the tube usually being left in place for two or three days without rectal irritation or discomfort and we have used it almost continuously for as long as twelve days without complaint from the patient. The tube should be removed at least once every twelve hours to be thoroughly cleaned and well lubricated.

Nursing staffs are enthusiastic about rectal infusion as it requires a minimum of watching and does away with the need for other enemas for the relief of abdominal distention. Many postoperative patients experience difficulty in expelling the usual carminative enema and there are many soiled beds from this type of enema. This does not happen with rectal infusion. This method is equally useful in the home.

Conclusion

We feel rectal infusion has a definite place in the management of surgical and some types of medical cases. It is a simple, effective and inexpensive method of administering fluid and adds materially to the comfort and well-being of the patient.

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Unusual Tumor of Vulva

By Casimir A. Domzalski, M.D.
Detroit, Michigan

CASIMIR A. DOMZALSKI, M.D.

A.B., University of Detroit, 1915. A.M., University of Detroit, 1917. M.D., University of Michigan, 1919. Attending Obstetrician, St. Francis Hospital, Hamtramck, Michigan, 1939-1940. Member of Michigan State Medical Society.

■ FEMININE modesty is occasionally carried to extremes which are apt to imperil the health of the individual, and often convert a simple surgical procedure into a difficult, if not impossible task. When such modesty is combined with ignorance, the results are sometimes humorous, but oftener pathetic or tragic.

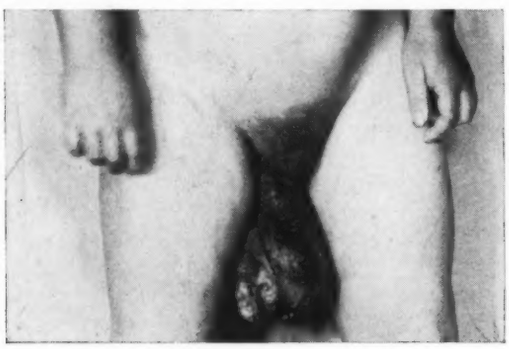

Fig. 1. Anterior view, pre-operative.

In the present case, I was called by the mother to attend M. M., an unmarried female, aged twenty-six, whose mental level was less than that of a ten-year-old child. The mother informed me that she had noticed for the past few days that the daughter had some difficulty in sitting, and that she spent an excessive amount of time in the bathroom. The patient had admitted to the mother that "something was protruding between her legs," but had not permitted the mother to see what that "something" was, until a few hours prior to my call.

Questioning of the patient elicited the information that she had difficulty and pain on defecation; that micturition was only possible when she stooped forward in a standing position; and that walking and sitting were accompanied by much pain. She was vague about the duration of her condition, admitting that it might have existed a few months, or a few years.

Because of ulceration, the tumor mass was very sensitive, and a satisfactory examination was impossible until just prior to the operation, which was performed on July 23, 1937, at the St. Francis Hospital.

Under anesthesia the main tumor mass was found to have its origin in the upper half of the right labium majus, the mons veneris and the entire left labium majus. The urethra was distorted and elongated by the weight of the tumor mass. The vagina exuded a large quantity of purulent mucus, and was found to have several strictures at different levels. Beneath the tumor mass, the perineum and the entire circum-anal area were studded with innumerable condylomata of various sizes. The anus was completely occluded by three enormous condylomata, the largest of which measured 4 cm. in diameter. These three condylomata were, no doubt, responsible for the pain on defecation.

After removal, the main tumor mass was found to measure 30 x 25 x 20 cms., and weighed 3,620 grams (approximately 8 pounds). The pathologist's diagnosis was: "Infected, ulcerating lymphohemangio-endothelioma of the labia majora, with elephantiasis."

The patient's recovery was satisfactory. Both excretory functions are now painless. The condylomata, with few exceptions, disappeared under treatment with dusting powder.

5361 McDougall Avenue

TREATMENT OF SYPHILIS

In order that there may be a central source of information with regard to studies of the intravenous drip method of treatment of syphilis ("the five-day treatment"), the American Social Hygiene Association at 50 West 50th Street, New York, has been asked to gather and to keep available information regarding this subject. The Association requests all physicians and hospitals which are planning or are now carrying on studies of experiments with this method of treatment of syphilis to send brief information regarding the following points to the Association at the above address:

1. Name of hospital or other institution.
2. Name of principal physician in charge of the intravenous drip study.
3. Type of case or cases of syphilis treated by the intravenous drip method.
4. Name of drug or drugs used.
   (a) By the intravenous drip method.
   (b) By any other method before, during or after intravenous drip therapy. Mention any specific therapy used.)
5. Routine laboratory work done on cases of syphilis treated by the intravenous drip method.
6. Usual number of hours of intravenous drip treatment per day per patient.
7. Usual number of days of intravenous drip treatment per patient.
8. Any other pertinent facts.

The Association will be glad, so far as possible, to answer inquiries regarding the intravenous drip treatment of syphilis. The Association has available to physicians, upon request, a brief pamphlet on the subject of the present status of the intravenous drip method of treatment of syphilis, written by Dr. Charles Walter Clarke, Executive Director of the Association and a member of the New York City Committee on the Intravenous Drip Treatment of Syphilis.

President's Page

"To sum up then," said J. B. S. Haldane, in "Dædalus"*, "Science is as yet in its infancy, and we can foretell little of the future save that the thing that has not been is the thing that shall be; that no beliefs, no values, no institutions are safe."

Some such thought ran through my mind as I viewed, at the Convention, the greatest scientific exhibit ever put on by the A.M.A., and tried to push out of my mind the disturbing headlines of the last edition.

War, even the preparation for an adequate defense, necessitates a certain concentration of Federal authority. Even as the House of Delegates by resolution, pledged the services of the profession and placed the machinery of the Association at the disposal of the Government, it recognized that this patriotic response might be our undoing. Here lies Danger, for as President Van Etten noted, there has been, in recent months, an invasion of Pagan ideas which would force a foreign system of medical practice on us.

As Loyal citizens we desire to serve our country as best we can. We recognize the possibility of post-war pestilence, and know that the reflection of this war in this country will create for us new responsibilities and demands. We are ready, but we will be on guard lest those who are advocating peace-time governmental regulation of our profession take advantage of this patriotic response.

Burton R. Corbus

President, Michigan State Medical Society

*Dædalus or Science and the Future (1923).

EDITORIAL

HAIL! ILLINOIS

■ The *Illinois Medical Journal* has issued a special number celebrating the one hundredth anniversary of the Illinois State Medical Society. The progress of American medicine is well exemplified by the progress of the Illinois State Medical Society. Its independent, courageous, brilliant members have been leaders in establishing the high standards of the profession and a record of their stand through the trials of organized medicine amply testifies to their sound and still progressive attitude towards medicine.

UNPREJUDICED OPINION

■ Most of the physicians of Michigan read the report of Dr. Hugo A. Freund, President of the Children's Fund of Michigan, published in May.

Following are poignant excerpts:

"***The Legislature also reduced the appropriations for sick children. This came in part from a drive for economy, which is proper enough if not carried on to the sacrifice of human welfare. It is to be noted that the cuts in these funds were excessively drastic, far out of proportion to the cuts for any other department of State government.

"The penurious attitude of the State toward the profession has placed a handicap of major importance upon those who willingly accept the obligations for the care of the underprivileged sick, but who rightfully refuse to accept the gratuitous insult contained in the new regulations imposed upon the medical profession which has never been derelict in its duty in the care of the indigent.

"As a result of this abnormal reduction, the flow of sick needy children entitled to care at State expense through our clinics has shrivelled to an insignificant stream. We have done our best to meet the need from our own funds, but its magnitude is and always has been beyond our resources; nor is it the duty of private charity.

"The duty of the State is the protection of its citizens. The health of the citizen is of primary concern to the government. To promulgate and to enforce laws governing the health of communities is a requirement well established.***"

This, coming from an independent and humanitarian agency for the care of the unfortunate, is of particular significance. To this report no one can ascribe a desire to "hijack" or to further personal interests.

How much longer the administration is to remain deaf to the righteous indignation of those who know the inhuman attitude of certain politicians toward the afflicted and crippled children remains to be seen. It is necessary that the general public be made completely aware of this "Michigan disgrace."

MONEY IN YOUR POCKET

■ The Preventive Medicine Committee of the Michigan State Medical Society has been a very active and progressive group for many years. It has been most active in stimulating and crystallizing the interest of the physicians of Michigan in the opportunities of preventive medicine.

From the beginning and particularly since the Chairmanship of Dr. L. O. Geib the Committee has advocated the necessity of County Health Units (with a doctor of medicine as Director serving in an administrative and executive position only). In spite of indifference and maneuvering on the part of some of the politically-minded health authorities, a great deal has been achieved. The stimulating counsel of such men as Vaughan, Gordon, Prichard and Byington plus a continuously active personnel has been a great factor in making preventive medicine a part of the general practitioner's thought and action and has been a protective brake on governmental absorption of this part of medical practice.

One of the most noteworthy programs was completed in 1939 resulting in the distribution of immunization schedules and cards. These cards are mailed to the parents of all new-born children and are to be kept as a permanent record of that infant's health record from birth to the

day he enters school. The parent is advised when to see his family physician for protection against whooping cough, diphtheria and small pox.

The response has been extraordinary, far beyond the most extravagant hopes of the committee and amply demonstrates that preventive medicine is and must continue to be a part of general practice.

These immunization cards are available to any physician who desires a supply. Write G. M. Byington, M.D., Department of Health, Detroit.

The thanks and congratulations of the Michigan State Medical Society are extended to this committee for their work.

PREPAREDNESS

■ If you do not equip yourself to do periodic health examinations you may find yourself as unprepared as the democracies are to the new blitzkrieg type of warfare.

Perhaps you feel that over night you can prepare yourself to evaluate satisfactorily the health of a supposedly healthy person. It won't take you quite as long as it will take the United States to build airplanes and tanks but you can't do it over night.

Survey yourself and your office equipment to determine your capability to make a complete physical examination and then begin testing your ability. The ordinary life insurance examination has been accepted by many people, both lay and medical, as a complete examination, but thoughtful consideration reveals the falsity of that premise.

For a number of years the American Medical Association has attempted to stimulate interest in complete physical examinations. It publishes blanks which are rather capable guides. It also publishes a manual on "Periodic Examinations" (obtainable from the American Medical Association, 535 North Dearborn Street, Chicago, Illinois, for twenty-five cents) which is extremely valuable.

Don't wait for the public to demand these examinations. Keep ahead of the crowd and offer it to your patients.

HENDRICKS OF KALKASKA

■ In a little Northern Michigan town of less than a thousand people Dr. H. B. Hendricks was called to attend a patient who had died from eating mushrooms. Other doctors have probably had the same experience but this man in the true spirit of his profession felt that an investigation into the reasons for death from a supposedly safe "false morel" should be determined.

He found that the poisonous properties of this mushroom were so variable, depending upon the season, that while at times it could be eaten with immunity, still at other times it produces serious morbidity and even fatality. His scientific interest did not stop because he was a country practitioner. His very excellent report was not only published in the *Journal of the American Medical Association,* but also released in the "clip sheet" in which abstracts of the most important and interesting articles are released to other publications.

Laboratories and clinics do not make a science. A true physician's mind is his laboratory; his patients, the clinic. Michigan is proud of its scientific investigators like Hendricks of Kalkaska!

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 4, 1941, at 2:00 P.M. Candidates who successfully complete the Part I examinations proceed automatically to the Part II examinations held later in the year.

Applications for admission to Group B, Part I, examinations must be on file in the Secretary's office not later than October 5, 1940.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting at Cleveland, Ohio, immediately prior to the 1941 meeting of the American Medical Association.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I and Part II examinations.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, (6) Pennsylvania.

DIAMOND ANNIVERSARY—MICHIGAN STATE MEDICAL SOCIETY

Outline of General Assembly Program

Detroit, September 25, 26, 27, 1940

	Wednesday, September 25	Thursday, September 26	Friday, September 27
A. M. 9:30 to 10:00	Wallace M. Yater, M.D. Washington, D. C. Medical subject		P. A. Neal, M.D., Washington, D. C. Industrial Health subject
10:00 to 10:30	Hugh H. Young, M.D. Baltimore, Maryland Surgical subject		Henry C. Sweany, M.D. Chicago, Illinois Tuberculosis subject
10:30 to 11:00	INTERMISSION TO VIEW EXHIBITS	SEVEN SECTION MEETINGS THURSDAY MORNING	INTERMISSION TO VIEW EXHIBITS
11:00 to 11:30	Wm. S. McCann, M.D. Rochester, New York Medical subject		Samuel A. Cosgrove, M.D. Jersey City, N. J. Maternal Health subject
11:30 to 12:00	J. Deryl Hart, M.D. Durham, North Carolina Surgical subject		H. Flanders Dunbar, M.D. New York City Mental Hygiene subject
P. M. 12:00 to 12:30	(to be filled)		Speaker on Child Welfare invited
12:30 to 1:30	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	Paul A. O'Leary, M.D. Rochester, Minnesota Dermatological subject	Walter Ivan Lillie, M.D. Philadelphia, Pennsylvania Ophthalmological subject	Ambrose L. Lockwood, M.D. Toronto, Ontario Surgical subject
2:00 to 2:30	John H. Musser, M.D. New Orleans, Louisiana Medical subject	John G. Downing, M.D. Boston, Massachusetts Dermatological subject	Chevalier L. Jackson, M.D. Philadelphia, Pennsylvania Otolaryngological subject
2:30 to 3:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
3:00 to 3.30	Ralph M. Waters, M.D. Madison, Wisconsin Anesthesia subject	Thos. T. Mackie, M.D. New York City Medical subject	John D. Camp, M.D. Rochester, Minnesota Radiological subject
3:30 to 4:00	Charles F. McKhann, M.D. Boston, Massachusetts Pediatric subject	Joseph Stokes, Jr., M.D. Philadelphia, Pennsylvania Pediatric subject	Jacob P. Greenhill, M.D. Chicago, Illinois Obstetrical subject
4:00 to 4:30	Richard N. Pierson, M.D. New York City Obstetrical subject	Edw. Wm. Alton Ochsner, M.D. New Orleans, Louisiana Surgical subject	Reginald Fitz, M.D. Boston, Massachusetts Medical subject
4:30 to 6:00	VIEW EXHIBITS	VIEW EXHIBITS	END OF CONVENTION
6:00 to 8:00	President's Banquet	Alumni and Fraternity Dinners	
8:00 to 10:00	President's Night Rufus I. Cole, M.D. Mt. Kisco, New York	Postgraduate Convocation and Smoker	

All General Assemblies will be held in the Grand Ballroom, Book-Cadillac Hotel, Detroit.

THE 75TH ANNUAL MEETING
DETROIT — 1940

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, on September 24, 25, 26, 27, 1940. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

BURTON R. CORBUS, M.D., *President*
HENRY R. CARSTENS, M.D., *Chairman of The Council*
O. D. STRYKER, M.D., *Speaker.*
Attest: L. FERNALD FOSTER, M.D., *Secretary.*

SESSIONS OF THE HOUSE OF DELEGATES

TUESDAY, SEPTEMBER 24, 1940.
Book-Cadillac Hotel, Detroit

8:00 A.M. Delegates' Breakfast, English Room
9:00 A.M. First Session, Grand Ball Room
3:00 P.M. Second Session, Grand Ball Room
5:15 P.M. Special Pre-view of Exhibits
8:00 P.M. Third Session, Grand Ball Room

HOUSE OF DELEGATES, 1940

Grand Ball Room, Book-Cadillac Hotel, Detroit

Order of Business*

TUESDAY, SEPTEMBER 24, 1940

8:00 A.M. Sharp—Delegates' Breakfast, English Room

9:00 A.M. Sharp—First Session, Grand Ball Room

1. **Call to order by the Speaker**
2. **Report of Committee on Credentials**
3. **Roll Call**
4. **Appointment of Reference Committees:**
   - On Officers' Reports
   - On Reports of The Council
   - On Reports of Standing Committees
   - On Reports of Special Committees
   - On Amendments to Constitution and By-laws
   - On Resolutions
5. **Speaker's Address—O. D. Stryker, M.D., Fremont**
6. **President's Address—Burton R. Corbus, M.D., Grand Rapids**
7. **President-Elect's Address—Paul R. Urmston, M.D., Bay City**
8. **Presentation of Emblem to Philip A. Riley, M.D., Jackson**
9. **Annual Report of The Council—Henry R. Carstens, M.D., Detroit, Chairman**
10. **Report of Delegates to American Medical Association—Henry A. Luce, M.D., Detroit, Chairman**
11. **Resolutions****
12. **Reports of Standing Committees:**
    - (a) Legislative Committee
    - (b) Representatives to Joint Committee on Health Education
    - (c) Committee on Distribution of Medical Care
    - (d) Medical Legal Committee
    - (e) Postgraduate Medical Education Committee
    - (f) Public Relations Committee
    - (g) Ethics Committee
    - (h) Preventive Medicine Committee
      - Cancer
      - Child Welfare
      - Iodized Salt
      - Heart and Degenerative Diseases
      - Maternal Health
      - Mental Hygiene
      - Syphilis Control
      - Industrial Health
      - Tuberculosis
13. **Reports of Special Committees:**
    - (a) Committee on Nurses Training Schools
    - (b) Conference Committee on Pre-Licensure Medical Education
    - (c) Membership Committee
    - (d) Radio Committee
    - (e) Advisory Committee to Woman's Auxiliary
    - (f) Scientific Work Committee

Recess

TUESDAY, SEPTEMBER 24, 1940

3:00 P.M. Sharp—Second Session—Grand Ball Room

1. **Supplementary Report of Committee on Credentials**
2. **Roll Call**
3. **Unfinished Business**
4. **New Business****
5. **Reports of Reference Committees:**
   - (a) On Officers' Reports
   - (b) On Reports of The Council
   - (c) On Reports of Standing Committees
   - (d) On Reports of Special Committees
   - (e) On Amendments to Constitution and By-laws
   - (f) On Resolutions

5:15 to 6:30 P.M. Recess for Special Preview of Exhibits

*See the Constitution, Article IV, and the By-laws, Chapter 3, on the "House of Delegates."

**All resolutions, special reports, and new business shall be presented in duplicate.

TUESDAY, SEPTEMBER 24, 1940

3:00 P.M. Sharp—Third Session, Grand Ball Room

1. **Supplementary Report of Committee on Credentials**
2. **Roll Call**
3. **Supplementary Report from The Council**
4. **Supplementary Reports from Reference Committees**
5. **Elections:**
   (a) Councilors:
   2nd District—J. E. McIntyre, M.D., Lansing—incumbent
   3rd District—Wilfrid Haughey, M.D., Battle Creek—incumbent
   15th District—Otto O. Beck, M.D., Birmingham—incumbent
   16th District—A. S. Brunk, M.D., Detroit—incumbent
   (b) Delegates to American Medical Association
   Henry A. Luce, M.D., Detroit, incumbent
   T. K. Gruber, M.D., Eloise, incumbent
   Frank E. Reeder, M.D., Flint, incumbent
   Claude R. Keyport, M.D., Grayling, incumbent
   Alternate Delegates to American Medical Association
   R. H. Denham, M.D., Grand Rapids, incumbent
   Carl F. Snapp, M.D., Grand Rapids, incumbent
   C. S. Gorsline, M.D., Battle Creek, incumbent
   (c) President-elect
   (d) Speaker of House of Delegates
   (e) Vice Speaker of House of Delegates

Adjournment.

HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY, 1940

O. D. Stryker, M.D., Fremont, *Speaker*
J. J. O'Meara, M.D., Jackson, *Vice Speaker*
L. Fernald Foster, M.D., Bay City, *Secretary*
Names of Alternates appear in italics

1. **Allegan**
   O. H. Stuch, M.D., Otsego
   O. D. Hudnutt, M.D., Plainwell
2. **Alpena-Alcona-Presque Isle**
   W. E. Nesbitt, M.D., Alpena
   A. R. Miller, M.D., Harrisville
3. **Barry**
   R. B. Harkness, M.D., Hastings
   R. G. Finnie, M.D., Hastings
4. **Bay-Arenac-Iosco-Gladwin**
   C. L. Hess, M.D., 208 Davidson Bldg., Bay City
   V. H. Dumond, M.D., Shearer Bldg., Bay City
   Fred Drummond, M.D., Kawkawli
   J. C. Grosjean, M.D., 8th and Sheridan Sts., Bay City
5. **Berrien**
   Wm. Ellet, M.D., Benton Harbor
   Fred Henderson, M.D., Niles
6. **Branch**
   R. L. Wade, M.D., Coldwater
   Samuel Schultz, M.D., Coldwater
7. **Calhoun**
   A. T. Hafford, M.D., Albion
   Harvey Hansen, M.D., 1102 Central Tower, Battle Creek
   A. A. Humphrey, M.D., Leila Hosp., Battle Creek
   Geo. W. Slagle, M.D., 1506 Central Tower, Battle Creek

The Edison Laboratory

8. **Cass**
S. L. Loupee, M.D., Dowagiac
K. C. Pierce, M.D., Dowagiac

9. **Chippewa-Mackinac**
B. T. Montgomery, M.D., Sault Ste. Marie
Geo. Conrad, M.D., Sault Ste. Marie

10. **Clinton**
G. H. Frace, M.D., St. Johns
None named.

11. **Delta-Schoolcraft**
W. A. Lemire, M.D., Escanaba
Otto S. Hult, M.D., Escanaba

12. **Dickinson-Iron**
W. H. Alexander, M.D., Iron Mountain
E. B. Andersen, M.D., Iron Mountain

13. **Eaton**
Paul Engle, M.D., Olivet
F. W. Sassaman, M.D., Charlotte

14. **Genesee**
Frank E. Reeder, M.D., Genesee Bank Building, Flint
Geo. J. Curry, M.D., Genesee Bank Building, Flint
Donald R. Brasie, M.D., 907 Citizens Bank Bldg., Flint
Henry Cook, M.D., 400 Sherman Bldg., Flint
Don Wright, M.D., 403 W. Court Street, Flint
A. Dale Kirk, M.D., 300 East First Street, Flint
Robert Scott, M.D., 1215 Detroit Street, Flint

15. **Gogebic**
W. E. Tew, M.D., Bessemer
D. C. Eisele, M.D., Ironwood

16. **Grand Traverse-Leelanau-Benzie**
I. H. Zielke, M.D., Traverse City
C. E. Lemen, M.D., Traverse City

17. **Gratiot-Isabella-Clare**
M. G. Becker, M.D., Edmore
W. E. Barstow, M.D., St. Louis

18. **Hillsdale**
Luther W. Day, M.D., Jonesville
O. G. McFarland, M.D., North Adams

19. **Houghton-Baraga-Keweenaw**
J. H. Kirton, M.D., Calumet
Alfred LaBine, M.D., Houghton

20. **Huron-Sanilac**
W. B. Holdship, M.D., Ubly
C. W. Oakes, M.D., Harbor Beach

21. **Ingham**
C. F. DeVries, M.D., 320 Townsend, Lansing
R. S. Breakey, M.D., City Nat. Bldg., Lansing
T. I. Bauer, M.D., 301 Seymour, Lansing
W. H. Welch, M.D., 428 W. Michigan, Lansing
O. H. Bruegel, M.D., Abbott Bldg., East Lansing
E. H. Foust, M.D., 428 W. Allegan, Lansing

22. **Ionia-Montcalm**
W. L. Bird, M.D., Greenville
C. H. Peabody, M.D., Lake Odessa

23. **Jackson**
Philip A. Riley, M.D., 500 S. Jackson St., Jackson
J. J. O'Meara, M.D., 608 Peoples Nat. Bank Bldg., Jackson
H. A. Brown, M.D., 701 Reynolds Bldg., Jackson
C. S. Clarke, M. D., 605 Dwight Block, Jackson

24. **Kalamazoo**
F. M. Doyle, M.D., American Nat. Bank Bldg., Kalamazoo
I. W. Brown, M.D., City Hall, Kalamazoo
L. W. Gerstner, M.D., 420 John Street, Kalamazoo
Keith Bennett, M.D., Amer. Nat. Bank Bldg., Kalamazoo

25. **Kent**
A. V. Wenger, M.D., 302 Loraine Bldg., Grand Rapids
C. F. Snapp, M.D., Medical Arts Bldg., Grand Rapids
A. B. Smith, M.D., Metz Bldg., Grand Rapids
Geo. Southwick, M.D., 55 Sheldon Avenue, SE, Grand Rapids
Paul Kniskern, M.D., Medical Arts Bldg., Grand Rapids
Wm. Bettison, M.D., Medical Arts Bldg., Grand Rapids
A. J. Baker, M.D., Ashton Bldg., Grand Rapids
Leon DeVel, M.D., Metz Bldg., Grand Rapids
J. D. Miller, M.D., 612 Medical Arts Bldg., Grand Rapids
Wm. J. Butler, M.D., Medical Arts Bldg., Grand Rapids

26. **Lapeer**
D. J. O'Brien, M.D., Lapeer
H. M. Best., M.D., Lapeer

27. **Lenawee**
A. W. Chase, M.D., Adrian
Bernard Patmos, M.D., Adrian

28. **Livingston**
D. C. Stephens, M.D., Howell
D. A. Cameron, M.D., Brighton

29. **Luce**
Henry E. Perry, M.D., Newberry
R. E. Spinks, M.D., Newberry

30. **Macomb**
D. Bruce Wiley, M.D., Utica
A. B. Bower, M.D., Armada

31. **Manistee**
E. A. Oakes, M.D., Manistee
None named.

32. **Marquette-Alger**
V. Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Palmer

33. **Mason**
Robert Farrier, M.D., Ludington
(No alternate named)

34. **Mecosta-Osceola**
G. H. Yeo, M.D., Big Rapids
P. B. Kilmer, M.D., Reed City

35. **Menominee**
H. T. Sethney, M.D., Menominee
S. C. Mason, M.D., Menominee

36. **Midland**
Ed. H. Meisel, M.D., Midland
None named.

37. **Monroe**
D. C. Denman, M.D., Monroe
J. H. McMillin, M.D., Monroe

38. **Muskegon**
E. O. Foss, M.D., 502 Muskegon Bldg., Muskegon
E. N. D'Alcorn, M.D., Michigan Theatre Building, Muskegon
L. E. Holly, M.D., 876 North Second St., Muskegon
S. W. Hartwell, M.D., 706 Hackley Union Bk. Bldg., Muskegon

39. **Newaygo**
O. D. Stryker, M.D., Fremont
W. H. Barnum, M.D., Fremont

40. Northern Michigan
Wm. S. Conway, M.D., Petoskey
Walter E. Larson, M.D., Levering

41. Oakland
Richard Olsen, M.D., St. Joseph Mercy Hospital, Pontiac
C. T. Ekelund, M.D., Riker Bldg., Pontiac
Geo. A. Sherman, M.D., Oakland T. B. Sanatorium, Pontiac
Harold Roehm, M.D., Wabeek Bldg., Birmingham
A. D. Riker, M.D., Riker Bldg., Pontiac
Robert Baker, M.D., People's Bank Bldg., Pontiac

42. Oceana
Merle G. Wood, M.D., Hart
Wm. Heard, M.D., Pentwater

43. O.M.C.O.R.O.
C. R. Keyport, M.D., Grayling
C. G. Clippert, M.D., Grayling

44. Ontonagon
E. J. Evans, M.D., Ontonagon
S. H. Rubinfield, Ontonagon

45. Ottawa
A. E. Stickley, M.D., Coopersville
R. H. Nichols, M.D., Holland

46. Saginaw
C. E. Toshach, M.D., 333 S. Jefferson, Saginaw
S. A. Sheldon, M.D., 124 S. Jefferson, Saginaw
L. C. Harvie, M.D., 405 Weichmann Bldg., Saginaw
F. O. Novy, M.D., 420 S. Jefferson, Saginaw

47. Shiawassee
A. L. Arnold, Jr., M.D., Owosso
I. W. Greene, M.D., Owosso

48. St. Clair
A. L. Callery, M.D., Port Huron
None named.

49. St. Joseph
John W. Rice, M.D., Sturgis
R. A. Springer, M.D., Centerville

50. Tuscola
T. E. Hoffman, M.D., Vassar
E. C. Swanson, M.D., Vassar

51. Van Buren
W. R. Young, M.D., Lawton
Edwin Terwilliger, M.D., S. Haven

52. Washtenaw
J. A. Wessinger, M.D., 339 E. Washington, Ann Arbor
Dean W. Myers, M.D., 1917 Washtenaw, Ann Arbor
L. J. Johnson, M.D., 225 E. Liberty, Ann Arbor
C. L. Washburn, M.D., St. Joseph Mercy Hospital, Ann Arbor
L. E. Knoll, M.D., 227 E. Liberty, Ann Arbor
R. W. Teed, M.D., 410 Highland Road, Ann Arbor

53. Wayne
Ralph H. Pino, M.D., 1001 David Whitney Bldg.
R. L. Novy, M.D., 662 Maccabees Bldg.
E. D. Spalding, M.D., 662 Maccabees Bldg.
J. M. Robb, M.D., 641 David Whitney Bldg.
T. K. Gruber, M.D., Eloise Hospital, Eloise
W. D. Barrett, M.D., 311 David Whitney Bldg.
H. F. Dibble, M.D., 1317 David Whitney Bldg.
A. E. Catherwood, M.D., 1337 David Whitney Bldg.
Wm. J. Stapleton, Jr., M.D., 641 David Whitney Bldg.
R. M. McKean, M.D., 1515 David Whitney Bldg.
Henry A. Luce, M.D., 629 David Whitney Bldg.
R. C. Jamieson, M.D., 1309 David Whitney Bldg.
Chas. S. Kennedy, M.D., 10 Peterboro
G. C. Penberthy, M.D., 1515 David Whitney Bldg.
L. J. Hirschman, M.D., 7815 E. Jefferson Ave.
W. B. Cooksey, M.D., 62 W. Kirby
G. S. Bates, M.D., 1563 David Whitney Bldg.
C. E. Umphrey, M.D., 13331 Livernois
C. E. Dutchess, M.D., c/o Parke, Davis & Co.
H. W. Plaggemeyer, M.D., 1701 David Whitney
C. E. Simpson, M.D., 1210 Kales Bldg.
Allan McDonald, M.D., 1340 Maccabees Bldg.
H. J. Kullman, M.D., 1515 David Whitney Bldg.
P. L. Ledwidge, M.D., 1838 David Whitney Bldg.
C. K. Hasley, M.D., 1429 David Whitney Bldg.
L. W. Hull, M.D., 1701 David Whitney Bldg.
A. F. Jennings, M.D., 7815 E. Jefferson
G. L. McClellan, M.D., 2501 W. Grand Blvd.
C. F. Vale, M.D., 1306 David Whitney Bldg.
L. T. Henderson, M.D., 13038 E. Jefferson
Wm. S. Reveno, M.D., 951 Fisher Bldg.
C. K. Valade, M.D., 1604 Eaton Tower
S. W. Insley, M.D., 1302 Maccabees Bldg.
C. F. Brunk, M.D., 7815 E. Jefferson
R. V. Walker, M.D., 1320 David Whitney
H. L. Morris, M.D., 866 Fisher Bldg.

J. A. Kasper, M.D., Herman Kiefer Hospital
E. R. Witwer, M.D., Harper Hospital
R. C. Connelly, M.D., 1709 David Whitney Bldg.
R. A. C. Wollenberg, M.D., 938 David Whitney Bldg.
H. L. Clark, M.D., 634 Maccabees Bldg.
Wm. P. Woodworth, M.D., 2501 W. Grand Blvd.
D. I. Sugar, M.D., 17 Brady
M. H. Hoffmann, M.D., Eloise Hospital, Eloise
H. B. Fenech, M.D., 10 Peterboro
H. W. Peirce, M.D., 1652 David Whitney Bldg.
S. E. Gould, M.D., Eloise Hospital, Eloise
F. W. Hartman, M.D., Henry Ford Hospital
B. H. Priborsky, M.D., 742 Maccabees Bldg.
F. C. Witter, M.D., 2905 W. Grand Blvd.
Meshel Rice, M.D., 2501 W. Grand Blvd.
W. B. Harm, M.D., 5884 W. Vernor Highway
Arch Walls, M.D., 12065 Wyoming
J. B. Rieger, M.D., 1265 David Whitney Bldg.
V. N. Butler, M.D., 559 Fisher Bldg.
L. W. Shaffer, M.D., 1368 Yorkshire, Grosse Pointe Park
C. L. Candler, M.D., 2006 Eaton Tower
L. O. Geib, M.D., 3528 Van Dyke
C. J. Jentgen, M.D., 2501 W. Grand Blvd.
L. J. Gariepy, M.D., 16401 Grand River
E. H. Lorentzen, M.D., 11702 Grand River
J. H. Law, M.D., Grace Hospital
C. S. Ratigan, M.D., 22340 Michigan, Dearborn
Wm. N. Braley, M.D., 12897 Woodward
E. D. King, M.D., 5455 W. Vernor Highway
A. V. Forrester, M.D., 16491 Woodward, Highland Park
E. W. Fitzgerald, M.D., 932 Maccabees Bldg.
W. A. Chipman, M.D., 14920 Grand River
George A. Troester, M.D., 16131 Mack
Wm. Hamilton, M.D., 13836 Woodward, Highland Park
H. E. Bagley, M.D., 12922 W. Warren, E. Dearborn
G. L. Coan, M.D., 114 Maple St., Wyandotte

54. Wexford-Kalkaska-Missaukee
W. Joe Smith, M.D., Cadillac
John F. Gruber, M.D., Cadillac

MICHIGAN MEDICAL SERVICE

FACTS are now available to show the practical results of the operation of a medical service plan under professional supervision.

A tabulation of the first two months' experience of the *Surgical Benefit Plan* and the *Medical Service Plan* of Michigan Medical Service makes available some greatly desired factual data. An accumulation of such valuable information will be an important by-product of Michigan Medical Service.

Enrollment

Within the first eleven weeks of operation, 63,138 persons enrolled in Michigan Medical Service. Of these, 1,352 were enrolled in the Medical Service Plan and 61,786 in the Surgical Benefit Plan.

The following table indicates the enrollment and the firms whose employees are subscribers to Michigan Medical Service:

1. Medical 1,352
   Michigan State Highway Department—throughout state

2. Surgical 61,786
   Ford Motor Company—Dearborn, Highland Park, Ypsilanti, Tecumseh, Saline, Iron Mountain, and L'Anse; People's Outfitting—Detroit, Dearborn; Ann Arbor News—Ann Arbor; Saginaw News—Saginaw; Ford Trade School—Dearborn; Booth Newspapers—Detroit; Bay City Times—Bay City; Kalamazoo Gazette—Kalamazoo; Muskegon Chronicle—Muskegon; Grand Rapids Press—Grand Rapids; Dean and Harris Ford Sales—Lansing; Symons Brothers—Saginaw; College Drug—East Lansing; Department of Public Instruction—Lansing; Manufacturers' Life Insurance Co.—Saginaw; Unemployment Compensation Commission — throughout state; Stewart Hartshorn & Co.—Muskegon

TOTAL 63,138

It can be noted that Michigan Medical Service is enrolling subscribers throughout the state and that doctors in practically every locality may have patients who are subscribers.

Payments for Services

Approximately one out of every eighteen doctors in the state has been sent a check by Michigan Medical Service for services rendered to subscribers.

During the first two months, a total of $32,161.76 was paid to doctors *within less than thirty days* after receipt of their completed Monthly Service Reports.

Particular attention is called to the importance of completing the Monthly Service Report carefully and in detail in order to avoid delay in payments because of insufficient information. For each service rendered, doctors received an aver-

MICHIGAN MEDICAL SERVICE REGISTRATION HONOR ROLL

Members of our County Medical Societies are recognizing the great social value of Michigan Medical Service, and have indicated their belief and their desire to participate by a high percentage of registration with Michigan Medcal Service.

Below is listed the "Honor Roll," those societies with a registration (as of June 19, 1940) of 75 per cent or more of their membership:

100 per cent

Barry
Mason

90 to 99 per cent

Manistee

80 to 89 per cent

Bay-Arenac-Iosco-Gladwin
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
Ingham
Mecosta-Osceola-Lake
Menominee
Midland
Newaygo
Ontonagon
St. Joseph
Tuscola

75 to 79 per cent

Kent
Lenawee
Monroe
Northern Michigan
Oceana
O.M.C.O.R.O.
Ottawa
Saginaw

Additional registrations being received daily will soon place other societies on the Honor Roll. An Application for Registration may be found on page 504 for the convenience of physicians. Merely remove the blank, sign and return it to 2014 Olds Tower, Lansing.

age payment of $40.00. This average includes all minor services; office, home, and hospital calls; and major operations.

Know Your Medical Plan

Doctors of medicine should know the exact provisions of the Medical Service Plan and of the Surgical Benefit Plan in order that they may do their part to make the administration successful. Patients expect their doctors to know all about the plans sponsored by the medical profession.

Medical Service Plan: Subscribers to the Medical Service Plan may receive services of doctors of medicine in the home and office as well as medical and surgical care in the hospital —including consultation, x-ray, laboratory, and anesthesia service. Obstetrical care is included after twelve months of membership.

For tuberculosis, venereal diseases and mental disorders, only those services necessary to establish a diagnosis will be provided. For cancer and malignant growths, services necessary to establish a diagnosis and the initial operative or radiologic treatment will be provided.

Surgical treatment of appendicitis and hernia is not included if the subscriber has had one or more attacks previous to the date of his certificate.

Medical services for alcoholism, drug addiction, self-inflicted injuries and Workmen's Compensation cases are not benefits under Michigan Medical Service. Nor are drugs, materials, appliances or supplies to be paid for by Michigan Medical Service.

Surgical Benefit Plan: Subcribers to the Surgical Benefit Plan are entitled to surgical and x-ray services only *when a bed patient in the hospital.* Obstetrical care in the hospital after twelve months' membership is also provided.

Surgical services include operative and cutting procedures for the treatment of disease and injuries, and the treatment of fractures and dislocations (when performed in a hospital). Strictly medical or diagnostic services in the hospital or surgical care in the home or office are not included as benefits of this partial service plan.

X-ray services include diagnostic x-rays not to exceed $15.00 during a subscription year for each person entitled to benefits.

Billing Procedure

A fundamental principle adhered to in the development of Michigan Medical Service was that the paper-work to be required of physicians should be kept at a minimum.

After completing an Application for Registration with Michigan Medical Service, which indicates the doctor's willingness to coöperate and to provide services for subscribers, there are only two reports for the doctor:

1. *Initial Service Report,* which is the statement sent by the doctor notifying Michigan Medical Service that a subscriber has requested services.

   This Report makes it possible for the doctor to verify that the patient is in good standing and eligible for his services.

   Be sure that an Initial Service Report is sent to the Medical Advisory Board of Michigan Medical Service in Detroit for each patient for whom services are to be paid by Michigan Medical Service.

2. *Monthly Service Report,* which is the itemized bill for services rendered.

   This Report is sent at the completion of services for a patient, but not later than the end of each month, to the Medical Advisory Board for approval and payment by Michigan Medical Service.

   All information requested in this Report should be filled in carefully.

   A monthly Service Report should be sent at the completion of services for a patient-subscriber, but not later than the end of each month, to the Medical Advisory Board for approval and payment by Michigan Medical Service.

Medical Advisory Boards

The Medical Advisory Boards in all districts are completed. All county medical societies, except one, have certified their representatives to the Boards. The chairmen and members of the Boards to date are as follows:

First District:
- Harold Kullman, M.D., Detroit, chairman
- Roy D. McClure, M.D., Detroit
- H. E. Bagley, M.D., Dearborn
- Carl S. Ratigan, M.D., Dearborn
- A. V. Forrester, M.D., Detroit

Second District:
- Milton Shaw, M.D., Lansing, chairman
- Thomas Wilensky, M.D., Eaton Rapids
- A. W. Strom, M.D., Hillsdale
- H. A. Brown, M.D., Jackson

Third District:
- Harvey Hansen, M.D., Battle Creek, chairman
- R. L. Wade, M.D., Coldwater
- Aben Hokeman, M.D., Constantine

Fourth District:
J. C. Maxwell, M.D., Paw Paw, chairman
W. R. Vaughan, M.D., Plainwell
Donald W. Thorup, M.D., Benton Harbor
S. L. Loupee, M.D., Dowagiac
L. W. Gerstner, M.D., Kalamazoo

Fifth District:
A. V. Wenger, M.D., Grand Rapids, chairman
T. H. Cobb, M.D., Woodland
V. L. VanDuzen, M.D., Belding
L. Paul Ralph, M.D., Grand Rapids
R. Nichols, M.D., Holland

Sixth District:
A. L. Arnold, Jr., M.D., Owosso, chairman
T. Y. Ho., M.D., St. Johns

Seventh District:
T. H. Cooper, M.D., Port Huron, chairman
W. B. Holdship, M.D., Ubly
H. B. Zemmer, M.D., Lapeer

Eighth District:
T. E. Hoffman, M.D., Vassar, chairman
W. E. Barstow, M.D., St. Louis
J. H. Sherk, M.D., Midland
W. K. Anderson, M.D., Saginaw

Ninth District:
W. J. Smith, M.D., Cadillac, chairman
E. F. Sladek, M.D., Traverse City
E. A. Oakes, M.D., Manistee
Gilbert Saltonstall, Charlevoix

Tenth District:
Fred Drummond, M.D., Kawkawlin, chairman
M. A. Martzowka, M.D., Roscommon
Harold Kessler, M.D., Alpena

Eleventh District:
Robert Farrier, M.D., Ludington, chairman
Glenn Grieve, M.D., Big Rapids
D. R. Boyd, M.D., Muskegon
W. H. Barnum, M.D., Fremont
Wm. M. Lemke, M.D., Shelby

Twelfth District:
F. J. Moloney, M.D., Sault Ste. Marie, chairman
A. H. Miller, M.D., Gladstone
G. F. Swanson, M.D., Newberry
A. K. Bennett, M.D., Marquette

Thirteenth District:
W. S. Jones, M.D., Menominee, chairman
D. R. Smith, M.D., Iron Mountain
D. C. Eisele, M.D., Ironwood
E. J. Evans, M.D., Ontonagon
Maurice Kadin, M.D., Calumet

Fourteenth District:
S. L. LaFever, M.D., Ann Arbor, chairman
A. W. Chase, M.D., Lenawee
H. G. Huntington, M.D., Howell
E. C. Long, M.D., Monroe
H. B. Britton, M.D., Ypsilanti

Fifteenth District:
Clifford Ekelund, M.D., Pontiac, chairman
R. W. Ullrich, M.D., Mt. Clemens

Registration of Doctors

As of June 6, 3,082 doctors of medicine had completed their Applications for Registration with Michigan Medical Service. Applications are being received daily to add to this total.

The splendid coöperation of doctors throughout Michigan in making Michigan Medical Service possible has already gained increased good will from employers and employees who have indicated a strong belief in a medical plan sponsored by the medical profession.

The following Table I shows the distribution according to type of practice of the doctors of medicine registered with Michigan Medical Service as compared with the distribution of doctors in private practice in the State of Michigan:

TABLE I. DISTRIBUTION OF DOCTORS OF MEDICINE REGISTERED WITH MICHIGAN MEDICAL SERVICE

According to Type of Practice

Type of Practice	Doctors Registered with Michigan Medical Service		Doctors in Private Practice in Michigan	
	Number	Per Cent	Number	Per Cent
General Practitioners	1,372	49.7	3,103	62.6
Devoting Special Attention	670	24.3	849	17.1
Total General Practitioners and Special Attention	2,042	74.0	3,952	79.7
Limited Specialists	717	26.0	1,006	20.3
Known Type of Practice	2,759	100.0	4,958	100.0
Type of Practice Unknown	343			
TOTAL	3,082		4,958	

Continued Success

The continued success of Michigan Medical Service is dependent on the sustained and sympathetic coöperation of doctors of medicine.

Support of the medical service plan sponsored by the Michigan State Medical Society should be a responsibility of every doctor of medicine in Michigan. This means that every doctor should strive to help improve the functions and procedures of Michigan Medical Service and to inform all persons in his sphere of influence of the purposes and provisions of Michigan Medical Service.

The importance of a successful medical service plan to the medical profession and the public is reflected in the steady growth of medical service plans under sponsorship of medical societies. In nineteen states, medical service plans are in operation or are proposed. At present, twenty-five medical service plans sponsored by medical societies are in operation.

A.M.A. Would Coördinate Medical Service Plan

The following resolution on Medical Service plans was presented at the recent meeting of the A.M.A. House of Delegates, New York, by the Michigan Delegates:

"WHEREAS, Medical societies in more than eighteen states have medical service plans in operation or in an advanced stage of development; and

"WHEREAS, It is of the utmost importance that organized medicine maintain a close and sympathetic interest in the administration and policies of medical service plans; and

"WHEREAS, There is need for uniformity in the standards of such plans and in the methods of collecting actuarial data; and

"WHEREAS, There are indications, if medical service plans do not have the benefit of coördinated leadership, that agencies other than medical may assume the direction of such plans; therefore be it

"RESOLVED, That the House of Delegates of the American Medical Association request the Board of Trustees to direct the Bureau of Medical Economics and the Committee on Medical Care to take appropriate steps toward the coördination of medical service plans and to arrange for the collection of information and experience that may be useful in developing and maintaining sound practices."

The Reference Committee on legislation of public relations of the A.M.A. House of Delegates presented the following report which was unanimously approved:

"Your reference committee recommends the approval by the House of Delegates of the resolution presented by Dr. L. G. Christian, Michigan, relative to the coordination of medical service plans. It recommends that the Board of Trustees be requested to direct the Bureau of Medical Economics to collect experience data and other pertinent information concerning prepayment medical care arrangements in order that sound practices may be developed and maintained, and to take steps looking to the coördination of medical service plans. Your reference committee also recommends that the House of Delegates reaffirm the principles pertaining to medical service plans previously adopted and urges the acceptance and application by all medical societies of the principles that prepayment group medical arrangements shall be controlled by the medical profession and that medical services be excluded from all group hospitalization plans but that, if the inclusion of special medical services are deemed necessary, the cost of such services be paid for in cash by the group hospitalization corporation directly to the insured persons.

"Your reference committee suggests the importance of complete and accurate data in order that the intent of the resolution may be realized. It is recommended, therefore, that the constituent state medical associations of the states in which medical care plans are now operating or in which such plans may be formed undertake to secure the full coöperation of such medical care organizations with the Bureau of Medical Economics."

APPLICATION FOR REGISTRATION with MICHIGAN MEDICAL SERVICE

....., 1940

To Michigan Medical Service:

I am a doctor of medicine, duly licensed to practice in the State of Michigan, willing to provide medical services under the medical service plan of Michigan Medical Service, a non-profit corporation, and I hereby apply for registration thereunder.

I agree to abide by the Articles of Incorporation, By-Laws, and the Regulations of Michigan Medical Service, and amendments thereto, in matters relating to the Michigan Medical Service plan, and the same are made a part hereof.

I agree to furnish reports of services rendered to patients under the medical service plan of Michigan Medical Service, to accept compensation for such services in accordance with the regulations of Michigan Medical Service, and, unless permitted by these regulations, to make no direct charge to such patients for services rendered under the Michigan Medical Service plan.

No parties other than myself or Michigan Medical Service shall have any right as the result of any agreement between myself and Michigan Medical Service.

It is understood that I may at any time discontinue participation in the Michigan Medical Service plan by giving fifteen days' notice in writing to Michigan Medical Service.

.....M.D.

My office address to which all communications from Michigan Medical Service are to be sent is:

....

(Please print or typewrite name) (Street and number) (City or town)

Physicians who are NOT members of the Michigan State Medical Society please enclose $5.00, which is the per capita payment made by the Michigan State Medical Society on behalf of members.

If you have not already signed your Application for Registration with Michigan Medical Service, detach this copy, sign, and return to Michigan Medical Service, 2014 Olds Tower, Lansing, Michigan.

MEDICO-LEGAL EVIDENCE*

By L. M. Ford, LL.B., J.D.

THE second rule of evidence is that, the treatment of the accused in any given case must be judged by the standards of the school of medicine in which he practices. This rule follows logically from the nature of the understanding of physician. He does not pose before his patients as a miracle worker but simply as a man of science who will undertake to apply the principles of that science to the treatment of disease.

A Case in Point

The true theory of this rule is clearly set forth in an opinion of the Supreme Court of Connecticut reversing a judgment against a physician who practiced in the homeopathic school of medicine. The controversy related to the treatment of an eye and during the trial the court admitted the testimony of physicians belonging to the regular school of medicine and refused to instruct the jury that they were to judge the accused only by the standards of his own school. The court says: "In the absence of special contract physicians and surgeons, by holding themselves out to the world as such, impliedly contract that they possess the reasonable and ordinary qualifications of their profession. If there are distinct and different schools of practice, and a physician of one of those schools is called in, his treatment is to be tested by the general doctrines of his school, and not by those of other schools. It is to be presumed that the parties so understood it. If the defendant adopted the treatment of his own particular school, which he publicly professed and practiced and the medical testimony offered by the plaintiff related to treatment prescribed by a different school, the jury should have been told that the relative merits of the two schools were in no sense before them for their consideration; that, so far as the defendant was to be judged by either, it was by the tenets, rules, principles and practices of his own school, not by those of another; and that, if the defendant adopted the treatment laid down by his own school the fact that another school prescribed another treatment tended in no way to show that the defendant was chargeable with lack of skill or negligence."

Reversal of Judgment

The Supreme Court of Minnesota, in reversing a judgment against a physician for civil malpractice, discussed this rule of evidence in a very thorough manner as follows: "The plaintiff next called as an expert witness, was Dr. Gray, a physician and surgeon belonging to what is known as the homeopathic school of medicine, and proposed to have him give his opinion, based upon the plaintiff's testimony, whether defendant's treatment of the case was proper. Defendant belongs to what is known as the allopathic or regular school of medicine, and was entitled to have his treatment tested by the rules and principles of that school and not of some other school. Objections having been made on this ground to the competency of Dr. Gray as an expert, he, on his preliminary examination, testified that there was a decided difference between the rules and principles of the two schools as respects the practice of medicine, but not as respects surgery. When inquired of as to whether the two schools differed as to their treatment of sepsis, his testimony was, as nearly as we can understand it, that they have the same rules in regard to the treatment of sepsis, connected with surgery; but where the condition of sepsis has developed a diseased condition, it becomes a question of disease and not surgery, and in such case the rules of treatment of the two schools of medicine would be entirely different. Upon the question of Dr. Gray's competency, defendant's counsel offered to introduce other professional testimony to show that the two schools are hostile to each other in their rules as to the treatment of sepsis, even in cases connected with surgery. The Court excluded this evidence, and permitted Dr. Gray to testify as an expert, saying that perhaps the offered evidence may be admitted later. We think this was in error. The question of the competency of the witness to testify as an expert was one for the court and not for the jury, and the defendant should have been permitted to present to the court on the preliminary examination all competent evidence on the question. The competency of the witness did not depend wholly upon his knowledge or skill as a physician or surgeon, but also upon the question whether he would apply the correct

*This article is Part II in the second of a series of authoritative discussions on medico-legal problems written by Mr. Ford, Attorney for the Medical Protective Company, Wheaton, Illinois.

rules and principles in giving his opinion as to the defendant's treatment of the deceased. It is true that the witness testified that his course of instruction had compassed the field of the allopathic course of study, but this would not help matters if he applied the wrong rules and principles to defendant's treatment. He may have, and probably did, give his testimony as to the propriety of this treatment upon the assumption that the rules and principles of the two schools were the same in a case of sepsis connected with surgery, but, if he was mistaken in this assumption, he would be testing defendant's treatment by a wrong standard."

Where the Rule Is Applicable

This rule of evidence is only applicable in cases where the treatment of one who is a follower of a recognized school of medicine is on trial. The defendant invoking the protection of the rule must show to the court that the principles of treatment which he applied are the tenets of some approved system of medicine. In affirming a judgment against a "magnetic healer" the Supreme Court of Wisconsin summarizes the law applicable to such a case as follows: One who holds himself out as a healer of diseases, and accepts employment as such, must be held to the duty of reasonable skill in the exercise of his vocation. Failing in this he must be liable for any damages proximately caused by unskillful treatment of his patient. This is simply applying the rule of liability to which all persons are subject who hold themselves out and accept employment as experts in any profession, art, or trade. The theory upon which an expert practices his profession, art, or trade, the sources from whence he derived his knowledge of it, the tools and appliances he employs in the exercise of his calling, his methods of work, are not controlling considerations. The courts pass no judgment upon these matters. They only look to results. Thus a person may rely entirely upon his genius or normal intuitions for some line of mechanical work, and hold himself out as an expert, and accept employment therein, without previous training or practice. The law holds him responsible if he does his work unskillfully, although he does the best he can. He takes the risk of the quality or accuracy of his genius or intuitions. On the same principles one who holds himself out as a medical expert, and accepts employment as a healer of diseases, but who relies exclusively for diagnosis and remedies upon some occult influence exerted upon him, or some mental intuition received by him when in an abnormal condition, in like manner takes the risk of the quality or accuracy of such influence or intuition. If these move him so imperfectly or inaccurately that, although he pursues the course of treatment thus pointed out or indicated to him, he fails to treat the patient with reasonable care and skill, he is liable for the consequences. The only difference in the two cases is, the mechanic works under normal and the physician acts under abnormal, influences or intuitions. The law does not concern itself with the quality of the mechanic's genius or with the reality or nature of such alleged occult influence or intuition which controls the physician in his treatment of his patient. It only takes cognizance of the question, did the practitioner or expert render the services he undertook in a reasonably skillful manner? That question, as applied to the defendants, the jury, upon sufficient proofs, have answered in the negative.

Competent Testimony

While it is true that the physicians who testified on the part of the plaintiff did not claim or pretend to know anything about the practice of magnetic healers, they were nevertheless competent, from education and experience, to testify whether or not the treatment the plaintiff underwent was proper in any case, and especially in her condition. Simply because a person claims or pretends to possess certain powers of healing peculiar to himself is no reason why other persons who do not claim such powers, but who know from education and practice, are not competent to judge whether the treatment administered was negligently or carelessly done. Otherwise any unprofessional person might undertake to treat a certain disorder, and—if defendant's position be correct in law, it matters not how carelessly or negligently performed—because, forsooth, no one could be found of the same pretensions to testify with respect to such treatment, the injured person would be without remedy. The contention is, we think, untenable."

Decisions Without Expert Testimony

Although the foregoing is a fair statement of the law relating to the requirements of proof in

cases of malpractice, there are decisions by Supreme Courts affirming judgment against physicians and holding in particular cases that the testimony of experts is not necessary to prove negligence on the part of a physician or surgeon. In these cases the courts have allowed the facts of the treatment to go to the jury without the testimony of experts relative thereto and permit the jury to determine the question of negligence without such aid. For the purpose of this article it is not necessary to discuss such decisions in detail.

The Careful Physician Is Safeguarded

Guarded by these rules necessitating the proof of negligence on the part of a physician or surgeon by expert testimony, it would seem that a careful and reputable physician is in a degree safeguarded in escaping the accusations of malpractice. In this particular, however, the profession is beset by its worst enemy and that enemy is bred within its own borders. This enemy appears in the person of a practitioner of enough ability to qualify as an expert witness. He has a wrong to right, either real or imaginary, or perhaps a jealous passion to feed, or, giving way to a pedantic weakness, wishes to pose before laymen as a superior critic of the work of his betters, and is led to give an opinion adverse to the treatment of his brother practitioner thus laying the basis for a conviction of civil malpractice.

This danger is one from which no practitioner is exempt and a judgment in every suit for civil malpractice is a possibility because the courts of the Country universally hold that the jury is the judge of the weight of the evidence and they can believe or disbelieve any part or all as they choose. Hence the testimony of one expert, however insignificant he may be, is sufficient to authorize a finding of guilt against the accused if the jury is disposed to believe his testimony.

End of Second Article.

THE BUSINESS SIDE OF MEDICINE

ASSISTANTS—ASSOCIATES—PARTNERS

By Henry C. Black — Allison E. Skaggs

When a medical practice seems to be too large for one doctor to handle, it sometimes becomes advisable to obtain the services of an assistant or an associate physician. Before going into such an association, however, we have found that the doctor should consider the possibility that better office facilities, better arrangement of time, improved coördination between the doctor and the nurse or secretary, or even the employment of an additional girl in the office, may make this step unnecessary.

As the new business problems arising from taking in another doctor deserve careful study, and as entirely new financial responsibilities are being assumed, it behooves both parties to make themselves thoroughly acquainted with the benefits as well as the hazards lest lack of forethought cause what might otherwise be a promising association, to come to grief.

Our experiences with such arrangements in the past several years prompt us to venture an outline of some pertinent conclusions.

For clarity we might classify some forms of association with which we are familiar:

A. The Employer-Employee Relationship where the employer
   1. Pays a salary to the employee
   2. Pays a salary and commission, bonus, or percentage to the employee. In either case ownership of the physical assets, accounts receivable, and goodwill always remain with the employer.

B. The Junior-Senior Relationship, usually some form of partnership where the senior partner may
   1. Retain ownership of all physical assets and accounts receivable, but share a percentage of income with the junior partner, increasing this percentage from year to year.
   2. Give or sell part ownership of the physical assets and accounts receivable to the junior partner thus allowing him to acquire more and more ownership and control as his percentage of the total earnings increases.

C. Equal Partnership, where two or more doctors, for their mutual benefit, pool their assets and share incomes and expenses, the advantages and disadvantages of which have been discussed in a previous issue of this Journal (*J.M.S.M.S.*, Vol. 36, December, 1937 Issue, Page 986).

D. Limited Partnerships in which practices may not be shared at all, but where joint ownership of an office building, or medical equipment is desired, or where there may be operating expenses which can be pooled to mutual advantage.

Group Practices, consisting of associations of many rather than two or three, come into the same general classifications, or combinations of them, differing from them only in the degree to which the problems become more complex, and since almost all associations begin with only two doctors, let us discuss briefly only the Employer-Employee, and the Junior-Senior Relationship.

The question as to which type of relationship now exists in Employer-Employee associations already set up is sometimes not too easy to decide, and without a written contract, often the rights of the men involved are not too clearly defined. For example a partnership might exist between two doctors without either being aware of it, and we have heard of cases where an employee whose remuneration had been on a percentage basis has, in the event of the death of the employer, sought to recover a share of the uncollected accounts from the employer's estate, even though the employer had never considered him a part owner at any time. Obviously enough, as we have so frequently stated in previous

articles, it is most important to have these matters clear in the beginning, and the pertinent facts included in a written agreement drawn up by an attorney

We believe one of the principal difficulties often encountered in a Junior-Senior relationship hinges on uncertainty as to the future, as it relates to either party. For example, Dr. Blank, having been in practice for ten or fifteen years, doing more work at times than his health will stand, and finding an occasional vacation next to impossible, considers employing an assistant. If he obtains a well-trained man with a good personality, there is always the danger that within a year or two, his assistant will get well enough acquainted to set up a practice for himself, take a substantial number of the patients with him, and to a large extent, build his own goodwill at the Senior's expense. On the other hand, if Dr. Blank gets a man reasonably competent, but without a pleasing personality, the Junior remains an assistant to the degree that the vacation problem is still there, and his contribution to the practice, as far as new patients in his age group are concerned, may be insignificant. This lack of confidence in what either may do several years hence is frequently the barrier to a successful association, and as there are many ways in which the future of each man may be reasonably well protected, it would seem to us that such arrangements should be encouraged.

If Dr. Blank knows it is not to Dr. X's best interests to leave, but rather to assist him as much as possible, profiting from his experience, making friends, and working for the common good, and if Dr. X has a reasonable assurance that his future with Dr. Blank depends entirely on how much interest and hard work he puts into the association, then hearty coöperation on both sides will lead to the most successful result for both. Dr. X, although possibly beginning on a salary, may have his future assured by early commitment as to an ultimate partnership.

A physician has little opportunity to cash in on his years of experience, his goodwill, or even his investment, after his period of greatest activity, except through an association with a younger man, where the experience and goodwill of the one may be supplemented by the energy and enthusiasm of the other.

In return for an immediate living, and the possibility to practice without years of waiting for patients, many young doctors will welcome the opportunity to bear the physical load in the Senior's later years, allowing him to conserve his energies and still enjoy a substantial income.

In pointing out some of the pitfalls to be avoided in various types of medical associations we do not intend to discourage them. On the contrary, there are many advantages in their proper application, and we know many that are pleasant and profitable. The basis for such successful relationships is not only the obvious fair treatment on both sides, but a thorough understanding of the aims and ambitions of each man, and a definite arrangement in writing will prevent, as far as possible, misunderstandings as to the present and doubts as to the future. By combining careful analysis of the local situation with experienced counsel, almost any established physician who seeks an associate in his office can do the thing which many would like to do, but have hesitated to do because of the unfortunate experiences of some of their colleagues.

YOU AND YOUR BUSINESS

MEDICAL MEN LEAD AGAIN!

Falling in at the head of the parade, the House of Delegates of the American Medical Association, representing more than 117,000 members of the medical profession in the United States, adopted unanimously a resolution on Medical Preparedness introduced by the Board of Trustees of the A.M.A. The resolution calls for the immediate creation of a Committee on Medical Preparedness to consist of ten members of the House of Delegates, together with the President and Secretary of the Board of Trustees, the President and Secretary of the A.M.A. and the Editor of *The Journal of the A.M.A.* as ex-officio members.

The resolution further provides that the "Committee establish and maintain contact and suitable relationship with all governmental agencies concerned with the prevention of disease and the care of the sick, in both civil and military aspects, so as to make available at the earliest possible moment every facility that the American Medical Association can offer for the health and safety of the American people and the maintenance of American democracy."

The personnel of the Committee on Medical Preparedness is as follows: Irvin Abell, M.D., Louisville, Chairman; Charles A. Dukes, M.D., Oakland, California; Roy W. Fouts, M.D., Omaha; Stanley H. Osborn, M.D., Hartford, Conn; John H. O'Shea, M.D., Spokane, Wash.; James E. Paullin, M.D., Atlanta, Ga.; Walter G. Phippen, M.D., Salem, Mass.; Harvey B. Stone, M.D., Baltimore; Fred W. Rankin, M.D., Lexington, Ky.; and Samuel E. Thompson, M.D., Kerryville, Texas. Ex-officio members of the committee include Arthur W. Booth, M.D., Elmira, New York, and Austin A. Hayden, M.D., Chicago, Chairman and Secretary, respectively of the Board of Trustees of the A.M.A.; Nathan B. Van Etten, M.D., New York City; and Olin West, M.D., Chicago, President and Secretary, respectively, of the American Medical Association; and Morris Fishbein, M.D., Chicago, Editor of *The Journal of the A.M.A.*

Members of the House of Delegates also studied tentative plans for mobilization of the medical profession in the event of a national emergency, which were presented by Col. G. C. Dunham of the U. S. Army Medical Corps.

A Medical Preparedness Section was inaugurated in the *A.M.A. Journal* with the June 22 issue. In this section appear official notices by the Committee on Medical Preparedness of the American Medical Association, announcements by the Surgeon Generals of the Army, Navy and Public Health Services, and other governmental agencies dealing with medical preparedness, and such other information and announcements as will be useful to the medical profession.

ALMOST A THOUSAND CRIPPLES NEED IMMEDIATE CARE

5,000 crippled children have been examined in the Crippled Children commission clinics during the past year.

1,331 needed immediate hospitalization and medical care.

394 have been hospitalized.

937 who should have immediate treatment have received no care.

Our State officials, who have closed their eyes to this crying need, are merely delaying the day of reckoning. The future price of permanent disability, suffered by thousands of crippled and afflicted children of Michigan, will be far greater to the taxpayers than the present cost of an efficient rehabilitation program.

MICHIGAN GOES AMERICAN

There is solid profit in being well. The person in exuberant health is difficult to defeat.

If a nation were to choose between health and wealth, it would be wise to choose health. This is no preachy saying—more and more people in general are realizing the truth of the worth of health.

The foregoing is not wholly fundamental to this discussion, but it has much to do with it.

Michigan, a success of our legislature, Mrs. Dora Stockman, the coöperative spirit and escape from too much government at Washington are considerations all bound up in what is here attempted.

Recently Mrs. Stockman, representative of the second district of Ingham county, but more celebrated for her leadership in the Michigan State Grange, was in Washington from where she broadcast to the nation over the facilities of the NBC the working of the new Michigan law, wherein people in those areas of the state where there is no medical and nursing service are now benefited.

While the situation has not been known to many, yet, those especially charged with such problems have studied the situation for a long time. So the new legislation of the last legislature is not the result of a flash of reform, lacking due consideration.

The new legislation need not be realized as a mere generality. A brief statement will make the need more clear. According to Mrs. Stockman, the mortality rate among mothers and children was five times as great where there was no medical or nursing care as where such care and attention were afforded. Such a situation is the statement of a real need.

For a long time the Michigan State Grange has been aware of the dire situation. Five years ago it definitely took the problem in mind. As is often the case when a need of the kind arises, it also became contemplated by the Michigan Medical Society. So, at the last session of the legislature, the minds of those interested met. The Michigan Medical Society asked Mrs. Stockman to aid them in expressing in an appropriate measure their plan for servicing the areas unserviced with physicians or nurses.

The idea took the form of medical insurance. For a fee graduated for the individual, or for a husband and wife or for a whole family, the Michigan Medical Society engages to supply medical attention.

The best of the whole matter is that the plan works—that is to say, it is resulting as intended. The first ten weeks of the new law saw more than sixty thousand subscribers to the plan enrolled. Acceptance of the plan is increasing.

Decrease of the mortality rate among mothers and children in the unserviced areas of the state will be the best aspect of the new undertaking; but, close after that result, stands the fact that there is something the people of Michigan are doing for themselves, in their own way. We are not trusting to centralized government at Washington.

With centralized medical control, Hitler began his subjugation of the German people. This nation will continue a self-dependent nation or a Washington dependent nation—there are no two ways about it.—*State Journal,* Lansing, June 3, 1940.

"NON REPITATUR"

"Under one of the sections of the new Federal Food, Drug and Cosmetics Act it is unlawful to dispense any barbiturate, Barbital, Phenobarbital, Nembutal, etc., either over the counter or on prescription without affixing a sticker marked 'Warning—May be habit forming,' UNLESS the p r e s c r i p t i o n is originally marked 'Non Repitatur.'" It is our belief that such a sticker might create a feeling of alarm in the patient's mind, and for this reason it is suggested that each prescription for barbiturates should be marked "Non Repitatur." This procedure makes the warning sticker unnecessary and gives the druggist a chance to send the patient back to his doctor for further medication. It also will discourage the promiscuous refilling of prescriptions of this type.

KNOW WHAT'S IN YOUR CONTRACT

There is no insurance contract offered to physicians which has not been gone over and over again most carefully by competent legal talent, point by point, to safeguard the legal interests of the insurer. Certainly, what is prudent for the insurer is an equally wise procedure for the prospective insured to follow. It is urged that specimen contracts from as many insurance companies as possible be obtained, and then submitted to any attorney for comparative selection of the one best suited to your individual needs. Don't buy on sales talk alone.—*Medical Jurisprudence,* by Carl Scheffel, Ph.B., M.D., LL.B., P. Blakiston's Son & Co., 1931.

INVITE THEM TO JOIN

How many eligible doctors of medicine in your county are not members of the County and State medical societies because they have received no invitation to become associated with organized medicine? The President and the Membership Committee of the Michigan State Medical Society wish to appoint the County Medical Society

Secretary to be a committee of one to make personal or telephonic contacts with all ethical practitioners, urging them to become active members of the County and State medical societies NOW.

Tangible benefits are being received by members of the Michigan State Medical Society—else what can account for the all-time high record of 4,427 members?

SUGGESTIONS ON RADIO TALKS

Effective radio speakers realize that they hold or lose the listener in the first minute or two. Therefore they make a point of doing these things:

Subject:

They select a subject interesting, important and vital to people. They find out what interests people by asking those who really represent different sections of the radio audience—such as the business man, the manufacturer, the scientist, the teacher, the young student, the man in the street, the laborer, the motorman, the clerk, and so on.

How They Write Their Speech:

They write as they talk.

They make their talk alive with things of homely interest.

They make their remarks short, terse, and direct to the point.

They make their speech concrete and specific about a few points. They know that too many ideas confuse the listener.

They write their speech so as not to crowd the time allotted. They allow themselves ample time for emphasis; for using a free and easy manner without galloping to a finish.

They use simple, understandable words which every listener knows. They realize that it is unnecessary to impress on the listener that they know all the big words in the dictionary.

They avoid long, pedantic speeches.

They avoid statistics as they would the plague. If statistics are unavoidable, similes by word pictures are always best.

They avoid humor, unless they are qualified to use it. They know that it takes a natural humorist to tell a funny story.

They never make the direct statement that they are going to prove so and so. They know that this always makes a listener antagonistic.

Delivering The Speech:

They approach the microphone as if they were discussing matters with a group of acquaintances.

They speak sincerely and convincingly.

They pace their talk as they would in face-to-face conversation. They always avail themselves of time for studio rehearsals at the broadcasting station.

They follow the meaning of their remarks, rather than the actual commas and periods.

They time their speech at rehearsal, and they carefully watch their time.

They leave their audience wanting more.

They broadcast as they talk, not as they read.

They do not clear their throats or cough when near a microphone. They have their manuscripts on loose sheets, never clipped together. They know that in this way they can drop each sheet to the floor as it is finished.

They never say anything for a few seconds before starting or after closing. They are conscious that the microphone might be open and pick up such sounds.—*From a bulletin from the Columbia Broadcasting System.*

THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE

ARTICLE I.—Duties to the Profession.

Deportment

Section 3.—A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

Advertising

Section 4.—Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communica-

tions, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any method to gain the attention of the public for the purpose of obtaining patients.—Extract from Chapter III of *Principles of Medical Ethics.*

WAGNER-GEORGE HOSPITAL BUILDING BILL

The United States Senate passed the Wagner-George Hospital Building Bill in its revised form and included the dangerous and unsatisfactory definition of "hospital" as a "health, diagnostic, or treatment center, the equipment thereof, and facilities relating thereto." The bill has been sent to the House of Representatives for consideration, where, it has been urged the definition of the term "hospital" will be clarified.

HUGH CABOT, SALESMAN

No more outspoken and biased salesman of any of the recent plans for medical care has arisen than Hugh Cabot, M.D., who is now peddling group practice through his book "The Patient's Dilemma," and more recently through magazine articles. An example of the latter appeared in the April issue of *American Magazine.* Laurance Redway, Editor of the *Westchester Medical Bulletin,* advises his membership "to read carefully this artful piece of special pleading, and to note the 'rabbit-stew' character of the defamatory cartoon" accompanying the article.

Just why Doctor Cabot of late has stooped to such odd peregrinations of both legs and hands it is a little puzzling to determine but what is still more puzzling is why he does not tell the truth. Testimony in court under oath by a physician should never afford the slightest possibility of doubt as to its veracity. No more should the public be fed with such propaganda as this: "I feel that the most of the trouble with medicine today comes from this system of private practice." "It is this system which is keeping the patients home in droves while the doctors are wondering how to pay their rent." "I am appalled at the inadequate, inferior, and terribly expensive care that the American people are receiving today." "As usual, it's the great middle class which is suffering most." "With organized medicine fighting to protect the fee system, the situation is bound to get worse rather than better."

Dr. Hugh Cabot would have us plunge into group practice, divided responsibilities, buck passing, and all, because we are such an immoral group of individuals without principle or high standards! Boston still may be the home of the bean and the cod, but the Cabots no longer show evidence of talking only with God.—*Connecticut State Medical Journal* (May, 1940)

ATTENTION, MR. BOYLES

According to information received up to July 2, 1940, the following county medical societies numbering thirty-seven, covering sixty-one counties of Michigan, have rejected new Schedule A of the C.C.C.:

1. Allegan
2. Alpena-Alcona-Presque Isle
3. Barry
4. Bay-Arenac-Iosco-Gladwin
5. Berrien
6. Branch
7. Calhoun
8. Chippewa-Mackinac
9. Clinton
10. Delta-Schoolcraft
11. Dickinson-Iron
12. Eaton
13. Genesee
14. Gratiot-Isabella-Clare
15. Hillsdale
16. Huron-Sanilac
17. Ingham
18. Ionia-Montcalm
19. Jackson
20. Kalamazoo
21. Kent
22. Manistee
23. Mason
24. Mecosta-Osceola-Lake
25. Menominee
26. Midland
27. Muskegon
28. Newaygo
29. Northern Michigan (Antrim-Charlevoix-Cheboygan-Emmet)
30. O.M.C.O.R.O. (Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw)
31. Ontonagon
32. Shiawassee
33. St. Joseph
34. Tuscola
35. Van Buren
36. Washtenaw
37. Wexford-Kalkaska-Missaukee

Woman's Auxiliary

Bay County.—Twenty-three members of the Woman's Auxiliary to the Bay County Medical Society met at the home of Mrs. D. J. Mosier for a buffet dinner on Wednesday, May 8.

Mrs. W. R. Ballard, President, conducted the business meeting. We are planning on having a rummage sale in October and Mrs. R. E. Scrafford, who will have charge of the sale, asked the ladies to keep their rummage.

Mrs. A. D. Allen, program chairman, introduced Mrs. Frederick F. Hewitt, who gave a most interesting talk on our local social agencies. A discussion followed and most of us gained a better understanding of the social work being done in our community.

The members of the Auxiliary voted to petition for membership in the Council of Social Agencies.

This was our last meeting until fall.

* * *

Calhoun County.—Annual report of the Calhoun County President of the woman's auxiliary to the Calhoun County Medical Society for 1939-40.

The past season has been a most successful one in Calhoun County for we have accomplished many things. New members have been added bringing our total membership as of March 1, 1940, to 38.

A résumé of the year follows:

In September our rummage sale netted us a profit of $147.37.

Our October meeting was successful and a grand send-off for the year—Dr. Ruth Baldwin from the Behavior Clinic of Bellevue Hospital of New York City spoke to us informally concerning the clinic and many of her outstanding experiences.

The November meeting was an unusual success for many things were accomplished.

First—we voted to assist the Calhoun County Crippled Children's Society. Where we were able and with $100 we established a fund to be used by us as needed to carry on our work as directed by the above society.

Second—we donated $100 to the Battle Creek district of the Michigan State Nurses Association to aid them in opening a Doctors and Nurses registry here in Battle Creek.

Third—At a cost of $100 we purchased a new davenport and large chair for the lounge of the Community Hospital Nurses Home. We are greatly indebted to a local furniture dealer for his great generosity in making the purchase possible for only $100.00.

Fourth—we contributed $10 to Leila Hospital Nurses and $10 to Community Hospital Nurses to be used toward their annual Christmas parties.

Fifth—Twenty-five dollars was sent to the Michigan Children's Aid to help their Christmas party fund.

In December we were dinner guests of our husbands. At Christmas time we secured the name of a needy and deserving family and completely cared for it before the Holidays. Our basket included staple supplies, perishable foods, candy, new clothing, new toys and gifts for all.

February the Auxiliary spent our meeting day sewing for Leila Hospital. 360 articles were completed.

At the March meeting sewing was done for Community Hospital and 182 articles were finished.

The April and May meetings were spent socially. No June meeting was held but a picnic for the doctors and their wives was given at Gull Lake.

Genesee County.—The regular meeting of the Woman's Auxiliary to the Genesee County Medical Society was held on Wednesday, May 22, at the home of Mrs. D. L. Treat, Flint. The guest tea at two o'clock was preceded by a meeting of the Board at one. At this time a campership of two weeks was allowed some worthy girl at the local Girl Scout Camp and a contribution was voted for the Red Cross.

The current welfare project, caring for a doctor's widow who is old, ill and impoverished was taken up and discussed and arrangements made to care for her through the summer. Contributions of money and food supplies were acknowledged. Mrs. W. Z. Rundles, Mrs. Alvin Thompson, Mrs. T. S. Conover and Mrs. Kenneth Sandy were appointed a committee to take charge of the project for the summer months.

The regular meetings were suspended for the summer, to resume at the regular time in September.

At two o'clock about fifty members and friends gathered for a most interesting tea and program.

Miss Betty Titus and Miss Bessie McPhee rendered several piano classics written by Chopin, Debussy, Haydn, et al.

Following the musical program Dr. Marie Skodak, assistant director of the Flint Child Guidance Clinic, spoke on the work of the Clinic, giving a very interesting résumé of the work they are doing with problem children and parents.

Following the program tea was served with Mrs. Gordon Willoughby, past president, and Mrs. J. H. Curtin, president of the Auxiliary, presiding at the Silver Service.

Mrs. Treat was assisted by a committee composed of Mrs. Guy D. Briggs, Chairman, Mrs. Frank Reeder, Mrs. H. T. White, Mrs. T. S. Wills and Mrs. D. R. Wright.

* * *

Jackson County.—The final meeting of the Woman's Auxiliary to the Jackson County Medical Society was held at the home of Mrs. Horatio Brown. The committee in charge were Mesdames Jason Meads, Geo. Pray, Frank Pray, W. H. Enders, John Scott, R. A. Scheurer, Geo. Baker and E. E. Virvirski.

Annual reports were given by the committee chairmen. A steam inhalator has been purchased for Foote Hospital, 50 waste baskets for Mercy Hospital and knitting has been done for the Red Cross.

The retiring president, Mrs. A. M. Schaeffer, was presented with a gift of appreciation from the group.

The new president, Mrs. G. R. Bullen, named the following committees for 1940-1941: Membership—Mrs. T. E. Hackett; Flower—Mrs. Cecil Corley; Program—Mrs. Morris Wertenberger; Legislative and Public Relations—Mrs. Hector Chabut; Ways and Means—Mrs. W. A. Wickham; Historian—Mrs. J. H. Myers; Hygeia—Mrs. W. H. Enders; Press and Publicity—Mrs. H. F. Dold; Telephone—Mrs. A. K. Payne; Social—Mrs. J. W. Wholilhan; Budget—Mrs. G. L. Otis; Parliamentarian—Mrs. J. E. Ludwick; Auditing—Mrs. W. L. Lathrop.

The social hour was in charge of Mrs. Grant Otis. Prizes were presented to Mesdames J. E. Ludwick, E. O. Leahy, W. B. Anderson, R. J. Hanna, Geo. Pray, J. H. Myers, C. A. Leonard, and W. H. Lake.

YOUR OPPORTUNITY TO ENROLL IN THE GROUP HOSPITAL PLAN

On February 1st, 1940, a plan for hospital care protection was made available to the members of the Michigan State Medical Society.

More than 1,220 physicians enrolled at the first opportunity. Since many members who did not enroll with the original group now wish to take advantage of this protection, the Society is opening its books of enrollment from August 10th to August 20th. During this period applications will be accepted. Subscribers may also, during the reënrollment period, make any changes they desire, such as including other members of their immediate family.

This service is offered by the Michigan Society for Group Hospitalization, a non-profit organization of 109 member hospitals throughout the State of Michigan. The Society offers the services of the hospitals on a small monthly pre-payment basis. For as little as two cents a day subscribers assure themselves of hospital service when needed. For as little as five cents a day the entire family may be protected.

Over 912 days of hospital service have been rendered to our members since the plan was installed, at a cost of over $6,000. The hospitals guarantee the services listed in the subscriber's certificate, which precludes the possibility of an assessment. The plan is operated on a non-profit basis, assuring the subscriber of hospital service at cost.

On this page is an application for your convenience. All applications received up to August 20th will be dated and made effective August 15th. Please do not forward a payment with your application. After your certificate has been issued, the Michigan Society for Group Hospitalization will send you a statement semi-annually. Payments should be made directly to their office.

APPLICATION

MICHIGAN SOCIETY FOR GROUP HOSPITALIZATION

I wish to enroll in the Michigan Society for Group Hospitalization. I desire the type of certificate checked below and understand that services listed therein will be available immediately upon your acceptance of this application.

MONTHLY RATES

Ward Service		Semi-Private Service	
☐ Single Subscriber	60c	☐ Single Subscriber	75c
☐ Self and Spouse (man or wife)	$1.20	☐ Self and Spouse (man or wife)	$1.50
☐ Self, Spouse and Unmarried Children (1 to 19 years)	$1.50	☐ Self, Spouse and Unmarried Children (1 to 19 years)	$1.90

My Name .....

Address .....

City .....

Listed below are the names of members of my family to be included in my certificate

Spouse (man or wife) ..... (Full Name)

	..... (First Name)	(Year Born)	..... (First Name)	(Year Born)
Unmarried Children (1 to 19 years ony)	..... (First Name)	(Year Born)	..... (First Name)	(Year Born)
	..... (First Name)	(Year Born)	..... (First Name)	(Year Born)
	..... (First Name)	(Year Born)	..... (First Name)	(Year Born)

MICHIGAN STATE MEDICAL SOCIETY

MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

POLLEN COUNT STATIONS

Pollen count stations will be established at some forty cities in the northern resort region of Michigan, according to plans which are being developed by the State Health Department. These stations will provide information for the thousands of hay fever sufferers who annually seek relief in this state.

Cities invited to participate in this program are located north of the Ludington-Bay City line. Local representatives in each of these cities will expose slides daily, sending them to the Lansing laboratories at weekly intervals for an interpretation by a trained botanist. Reports will be issued showing the comparative concentration of pollen in the various resort areas.

Cities participating in the pollen count program have been asked to contribute funds to help pay the salary of a trained botanist during the summer months. Since hay fever is not a specific communicable disease, health department funds are not available to finance the program. This will be the first time that a state health department has attempted such a survey on a wide scale. The tourist and resort associations of Michigan have also been invited to participate in the program.

HALF MILLION BLOOD TESTS IN NINE MONTHS

More than 500,000 serological tests for syphilis have been made during the first nine months of the current fiscal year, the Bureau of Laboratories reports. From 50,000 to 60,000 tests are being made each month.

The increase has been credited to a more general understanding of the value of blood tests and to the operation of the premarital and prenatal physical examination laws.

Positive indications of syphilis in marriage license applicants and in expectant mothers have been running approximately one per cent of the 15,414 tests made. For marriage applicants during the first quarter of 1940 there were 184 tests positive for syphilis, or 1.2 per cent. The prenatal blood specimens showed 203 or one per cent positive out of 20,440 blood specimens.

200 TYPHOID CARRIERS

More than half of Michigan typhoid fever cases are being traced to typhoid carriers, the Bureau of Epidemiology reports. Detailed records maintained by the bureau for the past eight years now list 200 known typhoid carriers. The bureau keeps in constant touch with these carriers instructing them in measures to prevent spread of the disease.

Last year there were 25 typhoid deaths in Michigan compared with 89 in 1930 and 300 in 1920. More is known about the cause and spread of typhoid probably than any other disease, yet the average of deaths per 100 cases remains today the same as it was years ago. Ten fatalities are expected out of every 100 typhoid cases.

NEW BABY INCUBATORS

A new incubator, being developed by the Bureau of Maternal and Child Health for the care of premature infants, has been placed in Children's Hospital, Detroit, on an experimental basis under the direction of Dr. Warren E. Wheeler, pediatric consultant. The new incubator will be used in caring for babies of various sizes and varying degrees of prematurity for the purpose of obtaining data as to its most effective operation. After this preliminary data has been obtained, similar incubators will be made available at selected centers throughout the state.

The incubator has been developed in the Engineering Division of the Ford Motor Company under the supervision of Dr. Wheeler. It is expected that the incubators will prove valuable in the care of premature babies delivered at home, for their transportation when necessary, and also for use at smaller hospital centers. When these centers have been selected, nurses on local health department staffs will be trained in the care of premature babies and arrangements made for the organization of a general premature infant program in the community, including education of both lay and professional groups.

ILLEGAL MEDICAL PRACTICE

The Law Enforcement Division has announced the recent conviction of two men for the illegal practice of medicine.

James C. Spurbeck, Lansing masseur, was convicted and sentenced by the Ingham County circuit court to three months' imprisonment and $150 fine, with the alternative of three additional months' imprisonment if the fine is not paid.

Edward La Motte of Garden, charged with illegally treating cancer patients, pleaded guilty in Chippewa County circuit court at its May session and was placed on three years' probation. The defendant was warned that any subsequent violation of the Medical Practice Act would mean a six months' term of imprisonment.

COMMUNICABLE DISEASES REPORT

	Total Cases First 4 Months 1940	Total Cases First 4 Months 1939
Pneumonia	1,416	2 214
Tuberculosis	1,818	2,049
Typhoid Fever	31	25
Diphtheria	**93**	**171**
Whooping Cough	**2,306**	**3,420**
Scarlet Fever	5,483	5,807
Measles	6,011	5,188
Smallpox	**11**	**55**
Meningitis	17	24
Poliomyelitis	12	9
Syphilis	3,713	3,810
Gonorrhea	2,160	2,087

MATERNAL HEALTH SURVEYS

Maternal health committees of the various county medical societies are inaugurating surveys of maternal and newborn mortality in their areas, according to Dr. Alexander Campbell, maternal health consultant. It is expected that these surveys will be continued over a period of five years. Local health officers have been requested to coöperate in every way possible in these surveys.

Following his recent survey of maternal health in Flint, Dr. Clair Folsome, obstetrical consultant, has been requested by the local medical societies to make similar surveys in Pontiac and Grand Rapids.

Dr. Campbell served in a consultant capacity during June to maternal health committees of Jackson County and Berrien County. Dr. Folsome was assigned during June to Kent County at the request of the county medical society. Dr. Warren Wheeler, pediatric consultant, served in Huron, Sanilac and Tuscola Counties during June at the request of the local medical societies.

IN MEMORIAM

Josephus M. Burgess of Northville, Michigan, was born November 11, 1852, at Walled Lake, Michigan, and was graduated from the University of Michigan Medical School in 1876. Dr. Burgess first went into general work in Saginaw but subsequently to Northville. Here he practiced medicine until he went to Detroit 25 years ago to be associated with his son, the late C. G. Burgess, M.D. Dr. Burgess was made an Honorary member of Wayne County Medical Society and the Michigan State Medical Society in 1932. He died on May 7, 1940.

* * *

Manley D. Caughey, of Detroit, Michigan. He was born in Crofton, Ontario in 1876 and was graduated from the Michigan College of Physicians and Surgeons, now a part of Wayne University. Dr. Caughey was prominent in Detroit medical circles for thirty-five years. He died June 14, 1940.

* * *

Milan Coburn of Coopersville, Michigan, was born on September 24, 1859 in Zeeland Township, Michigan and was graduated from the University of Michigan Medical School in 1893. Dr. Coburn practiced medicine in Coopersville since 1904. He was a retired member of Ottawa County Medical Society and of the Michigan State Medical Society. He died May 25, 1940.

* * *

Alva Collins of Detroit, Michigan, was born January 5, 1861 in Point Peninsula, New York. He was graduated from the University of Michigan Medical School in 1885. After interning in the New York Polyclinic hospital, he began practice in Detroit as an assistant to Dr. Donald McLean and in 1890, he opened his own offices, continuing the practice of medicine and surgery until he retired 10 years ago. Dr. Collins had served as president of the Wayne County Medical Society, and was an Emeritus member of the Michigan State Medical Society. He died May 23, 1940.

* * *

William A. Evans, of Detroit, Michigan. He was born at Dover, Ontario, August 24, 1876 and was graduated from the University of Michigan Medical School in 1902. After graduation he went into general practice at Bellarie, Michigan. In 1910 he moved to Detroit to study and practice roentgenology. He served as head of the X-Ray department of Harper Hospital, and for many years was a member and president of the Detroit Board of Health, during which time he was active in the campaign for the prevention of tuberculosis. Dr. Evans served on the staffs of several hospitals during the thirty years of his medical career in Detroit, and was a past president of the Radiological Society of North America. He died on June 9, 1940.

* * *

Arthur G. Holbrook, of Coldwater, Michigan. He was born October 6, 1866 in Nashville, Tenn., and was graduated from the Jefferson Medical college in Philadelphia, Pa. In 1899 he opened his practice in Coldwater, Michigan. Dr. Holbrook served as Treasurer of the Michigan State Medical Society for several years and was elected an Emeritus Member at its Annual Meeting September 1939. He died June 6, 1940.

Walter F. Martin, of Battle Creek, Michigan. He was born June 11, 1875 in Mount Vernon, Ohio, and was graduated from the American Medical Missionary college in 1903. He took postgraduate work at the New York Postgraduate Medical School, Johns Hopkins University and in Vienna, London, Paris and Berlin. Dr. Martin practiced medicine for 37 years and was head of the department of urology and was vice president of the Battle Creek Sanitarium board of Trustees. He was nationally known as a urological surgeon. In 1927 he was president of the Calhoun County Medical Society. He died on June 11, 1940.

* * *

Frank A. Votey, of Grand Rapids, Michigan. He was born in Scotts Corner, New York, July 27, 1862, and was graduated from Columbia University Medical School in 1887. He conducted a general practice in Detroit and Benton Harbor for several years and then took post-graduate work in proctology. He then opened offices in Grand Rapids, where he practiced for thirty-eight years. He died March 24, 1940.

* * *

James B. Bradley of Eaton Rapids, Michigan, was born November 19, 1858, in Laignsburg, Michigan, and was graduated from Rush Medical College, Chicago, Illinois. After graduation he located in Eaton Rapids, continuing the practice of medicine for fifty-four years. Dr. Bradley served as Auditor General of the State of Michigan from 1905 to 1908. He was medical examiner for the United States Draft Board during the World War and was chairman of the 1934-35 Legislative Committee of the Michigan State Medical Society. He was mayor of Eaton Rapids in 1901 and 1904. In September, 1939, Dr. Bradley was elected an Emeritus Member of the Michigan State Medical Society. He died July 4, 1940.

✶ COUNTY AND PERSONAL ACTIVITIES ✶

100 Per Cent Club for 1940

1. Allegan County Medical Society
2. Barry
3. Branch
4. Cass
5. Chippewa-Mackinac
6. Clinton
7. Delta-Schoolcraft
8. Gogebic
9. Houghton-Baraga-Keweenaw
10. Huron-Sanilac
11. Ingham
12. Lenawee
13. Livingston
14. Luce
15. Macomb
16. Manistee
17. Marquette-Alger
18. Mason
19. Mecosta-Osceola
20. Menominee
21. Midland
22. Muskegon
23. Newaygo
24. Oceana
25. O.M.C.O.R.O.
26. Ontonagon
27. Ottawa
28. St. Clair
29. Tuscola
30. Wexford-Kalkaska-Missaukee

The above Societies have each certified dues for 100 per cent of their physicians who were members in 1939. Fifteen other societies have three or fewer unpaid members!

You can't get security without giving up some freedom. The most secure person is the man in jail.

* * *

Herbert M. Holman, M.D., formerly of Ann Arbor, is now associated with Arthur E. Schiller, M.D., in Detroit.

* * *

J. K. Heckert, M.D., Lansing, was recently elected President and Wm. D. Irwin, M.D., Kalamazoo, re-elected Secretary of the Southwestern Michigan Triological Society.

* * *

Found guilty of practicing medicine without a license, L. H. Bock, an osteopath of Dowagiac, was sentenced to thirty days in the county jail, after his failure to pay a fine of $25.00.

* * *

Occupational disease reporting blanks, to aid you make the uniform report as required by law, are available in quantities. Write H. Allen Moyer, M.D., State Health Commissioner, Lansing, Michigan.

* * *

C. L. A. Oden, M.D., of Muskegon wrote the chapter on "Emergency Ligations and Control of Hemorrhage in the Treatment of Malignant Tumors" in the three-volume work entitled "Treatment of Cancer and Allied Diseases," to which prominent medical men from all parts of the United States have been asked to contribute.

Robert S. Breakey, M.D., Lansing and C. K. Valade, M.D., Detroit, members of the MSMS Syphilis Control Committee, addressed the Annual Convention of the Michigan State Pharmaceutical Association on June 4, 1940 in Grand Rapids.

* * *

Announcement has been received that Louis N. Katz, M.D., Director of Cardiovascular Research at Michael Reese Hospital, Chicago, is offering a full-time two-weeks' intensive course in Electrocardiography, August 19 to August 31. For particulars write Michael Reese Hospital, 29th and Ellis Avenue, Chicago.

* * *

E. Fullerton Cook, of Philadelphia, General Chairman, U.S.P. XII Committee, announces that the enforcement of the standards for Surgical Gut, which were announced in the Second Supplement to the U.S.P. XI, as effective July 1, 1940, will be postponed until January 1, 1941.

* * *

J. E. McIntyre, M.D., Lansing, Councilor of the 2nd District and Secretary of the State Board of Registration in Medicine, was honored by being chosen president-elect of the Federation of State Medical Boards at their recent annual meeting in Chicago. Doctor McIntyre will take office as president in 1941, following the expiration of the term of John R. Neal, M.D., of Springfield, Illinois.

* * *

Columbia University of New York City announces a short course on Clinical Disorders of Respiratory and Circulatory Function and Inhalation Therapy to be given under the direction of Alvan L. Barach, M.D., and Dickinson W. Richards, Jr., M.D., September 23 to 28, 1940. For further information write The Dean of the School of Medicine, 630 West 168th Street, New York City.

* * *

Chiropractors will not be permitted to attend compensable injuries of W.P.A. employees and others injured under the U. S. Employees Compensation, according to the latest information from Washington. The House of Representatives subcommittee which considered the bill to allow chiropractors to treat injured Federal employees has decided not to report favorably on it.

* * *

The regular spring meeting of the Michigan Pathological Society was held in Lansing, Saturday, May 25. There were 27 in attendance. The afternoon meeting, comprising demonstrations and exhibition of cases, was held at the Laboratory of the Michigan Department of Health. The dinner and evening meeting were held at St. Lawrence Hospital. The scientific program produced a variety of interesting pathological material. Nineteen cases were presented by thirteen members, on the subject "Pathology of the Cardio-Vascular System." The next meeting will be held on October 12, in Detroit, place to be selected. The meeting will be a seminar on "Diseases of the Blood." Dr. Russell Haden, of Cleveland, will be the guest speaker and referee.

* * *

A "venereal disease specialist," James Spurbeck of Lansing, who also is a masseuse, pleaded guilty to the charge of practicing medicine without a license after he admitted he had examined a girl and announced she had a positive case of gonorrhea. A competent medical examination proved that the girl was not infected. Judge

Hayden of the Justice Court sentenced Spurbeck to three months in jail plus a fine of $150, with additional three months in jail if the $150 fine is not paid.

Credit for collecting the evidence and following through on the above and many other cases of illegal practice of medicine is due Captain L. A. Potter, Inspector for the State Health Department, who is working in coöperation with the Michigan State Board of Registration in Medicine in an effort to protect the public from such unauthorized practice.

Dr. Power Appointed Field Representative

The Cancer Committee, in collaboration with the Michigan Health Department wishes to announce the appointment of Dr. Frank Power, of the Surgical Department of the University of Michigan, as successor to Dr. Clifford Keene as its Field Representative for the year 1940-41.

Dr. Power is a Michigan man—his home being in Traverse City. He graduated from the University of Michigan, took his medical work at Northwestern and has been a member of the surgical staff of the University of Michigan Medical School for the past five years. He comes to us with the highest recommendations.

Both the Michigan Health Department and the Cancer Committee are very much pleased over the acquisition of Dr. Power and look forward to another profitable year in its field work.

* * *

Condemnation of the practice of patenting of drugs or medical appliances for profit whether the patent be held by a physician or be transferred by him to some university or medical research foundation, as unethical is the gist of a resolution recently adopted by the Jefferson County (Louisville, Kentucky) Medical Society. The Society believes that the patenting of medical appliances and drugs results in the deprivation of the needy sick of the benefits of many new discoveries.

* * *

Recent articles appearing in *The Journal of the American Medical Association* include "Heparin" by Roy D. McClure, M.D., and C. R. Lam, M.D., of Detroit, issue of May 25; and "Pectin-Agar for Diarrhea in Infants and the Newborn: A Rational Simple and Effective Treatment" by Philip J. Howard, M.D., Detroit, co-author with Charles A. Tompkins, M.D., of Omaha, Nebraska, appearing in the issue of June 15.

* * *

Henry Cook, M.D., of Flint, Chairman of the Committee on Industrial Health, M.S.M.S., C. M. Colignon, M.D., Muskegon, and K. E. Markuson, M.D., of Detroit, were guest speakers at a Clinic on Health In Industry sponsored by the National Association of Manufacturers, the Muskegon Employers' Association and the Employers' Association of Grand Rapids, in Muskegon on June 28. Industrial health problems, deemed vital now in the nation's defense production speed-up, were analyzed.

* * *

Afflicted Child: Additional county societies are refusing to accept the new "Schedule A," proffered by the Michigan Crippled Children Commission, which schedule was reduced forty per cent below actual cost levels, without consultation with the members of the medical profession. To date, thirty-four county medical societies, representing fifty-five of the eighty-three counties, have protested against politics in connection with medical care. The following societies have taken action during the past few weeks: Allegan, Kalamazoo, Mecosta-Osceola-Lake, Ontonagon, Ottawa, Washtenaw.

DIAMOND JUBILEE OF M.S.M.S.

Your M.S.M.S. Convention is a Great Service to you. A $5,000 Show—at no cost to the individual member.

The 1940 Convention will be held in Detroit at the Book-Cadillac Hotel on September 24, 25, 26, 27. A number of extraordinary events will be featured at the Detroit Convention, which will mark the Diamond Anniversary. Wednesday, September 25, will be marked by the President's Dinner to be held in the Ball Room of the Book-Cadillac Hotel at 7:00 p.m., to which all members of the Michigan State Medical Society and their ladies are cordially invited.

A Smoker, for M.S.M.S. members only, has been arranged for Thursday, September 26, Ball Room, beginning at 9:00 p.m. Admission will be by complimentary admission card which will be sent prior to the meeting to all members.

Invitational Golf, at the beautiful Detroit Golf Club, will feature Monday, September 23. All M.S.M.S. members are invited. Tee off 1:00 p.m. Dinner and presentation of prizes at the Club, 7:00 p. m. Cost of greens fees and dinner, $4.00.

The Upper Peninsula Reunion Dinner, for physicians and their ladies who are practicing, or have practiced, or who feel that they should practice in the Upper Peninsula, will be held on Thursday, September 26, in the English Room at 6:30 p. m. Numerous other get-togethers of alumni and fraternity groups are being planned.

Plan now to spend several days in the metropolis of Michigan. Meet your fellow practitioners from all parts of the state, learn the latest advances in medical science from the nation's outstanding physicians and surgeons, and enjoy a well-deserved vacation from your demanding practice. Write for hotel accommodations today.

* * *

When the *American Life Insurance Company*, Detroit, went out of business in 1938, it owed a number of physicians sums of money for medical examinations made in behalf of the company. It is possible that these claims may be paid in whole or in part at some future date.

Physicians having such accounts against the American Life may file their claims with the Receiver or through the office of the insurance company in Detroit. (The American United Life of Indiana, 408 Fort Street, Detroit). It is not known what proportion of the claims will be paid, but it is advisable to file the claims in order to obtain what money is payable.

* * *

Correction—Our apologies to the following physicians whose names were inadvertently omitted from the Roster of Members published in the May issue of THE JOURNAL:

Blake, H. P.....Marquette
Campbell, Duncan A.....Detroit
Cavell, R. W.....Eloise
Fordell, F. S.....Detroit
Johnson, Ralph A.....Detroit
Kernick, Melvin O.....Detroit
Lang, L. W.....Detroit
Lange, A. H.....Detroit
Lawrence, Wm. C.....Detroit
Meade, Wm. H.....Jackson
Rothbart, H. B.....Detroit
Zimmerman, R. L.....Detroit

These names are being included in the Supplementary

Roster appearing in this issue. We are sincerely sorry these names were omitted from the regular Roster.

* * *

The 1940 Graduate Fortnight of the New York Academy of Medicine will be held from October 14 to 25, 1940. The subject is "Infections." The Fortnight will present a carefully integrated program which will include morning panel discussions, afternoon clinics and clinical demonstrations at many of the hospitals of New York City, evening addresses, and appropriate exhibits. All members of the medical profession are eligible for registration. A complete program may be obtained by writing Mahlon Ashford, M.D., New York Academy of Medicine, 2 East 103rd St., New York City.

* * *

Dr. Murphy Wins Golfing Championship of A.M.A.

Dr. John M. Murphy, Detroit, won the championship of the American Medical Golfing Association at Winged Foot Golf Club, Mamaroneck (Westchester County), New York, on the occasion of the A.M.A. meeting. For his gross score of 160 for 36 holes, he was presented with the famous Will Walter Trophy.

Dr. J. M. Robb, Detroit, was presented with the Atlantic City Trophy, for his low score in the 18-hole Handicap Championship.

Dr. Frank A. Kelly, Detroit, took home the Minneapolis Trophy, emblematic of championship among the Seniors.

Dr. H. N. Harkins of Detroit won the Petrolagar prize for a low gross in the Second Flight, and Dr. Philip A. Riley of Jackson turned in the best score in the Third Flight, winning a handsome Lektrolite.

The next tournament of the American Medical Golfing Association will be held in Cleveland in June, 1941.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

E. R. Squibb & Sons, New York
James Vernor Company, Detroit
Wall Chemicals Corporation, Detroit
U. S. Standard Products Company, Woodworth, Wisconsin
Westinghouse X-Ray Company, Inc., Long Island City, New York
Winthrop Chemical Company, New York
John Wyeth & Brother, Inc., Philadelphia
The Zemmer Company, Pittsburgh
Zimmer Manufacturing Company, Warsaw, Indiana

* * *

For the academic year 1940-41, Abbott Laboratories has established fellowships in several universities with important departments of organic chemistry and biochemistry. The fellowships, carrying stipends of $650 per year, will be available to graduate students in the last or next to the last years of graduate work leading to the doctorate degree. The recipients, who are to be selected by the universities in which their work is being done, are not limited as to the subjects on which they will work.

The object of the fellowships is to provide means for the carrying on of additional scientific work in American universities. The future progress of chemical developments in this country will depend upon the availability of well-trained and qualified men, and it is the intent of Abbott Laboratories in establishing these fellowships to lend encouragement in these general fields.

Grants will be made to the following universities:

In organic chemistry: Cornell, Harvard, Illinois, Michigan.

In biochemistry: California, Columbia, Cornell.

Wayne University Group Visits Lilly Plant

Eli Lilly and Company had the pleasure of a visit from the Wayne University College of Medicine, Detroit, Michigan, on June 2, 3, and 4, 1940.

Dr. Sidney Adler, faculty member, accompanied the group to Indianapolis as did Mr. Raymond McCaughan, Lilly representative.

Upon their arrival to the Pharmaceutical Laboratories Monday morning, Mr. Eli Lilly, President of the Company, extended the official welcome. At noon the group was shown one of the medical films dealing with the Anemias. The entire day was spent in the Research and Manufacturing Laboratories. Dr. D. C. Hines of the Professional Relations Department spoke to the group at the banquet that evening.

On Tuesday, June 4, the group visited the Lilly Biological Laboratories at Greenfield, Indiana, where explanations were made by various department heads concerning biological production carried on at that unit. The group departed after luncheon on Tuesday.

* * *

COUNCIL AND COMMITTEE MEETINGS

1. Tuesday, May 21—Joint Committee on Health Education—Porter Hotel, Lansing—5:00 p.m.
2. Wednesday, June 5—Child Welfare Committee—Flint—3:00 p.m.
3. Wednesday, June 5—Special Committee with Probate Judge Association—Hotel Porter, Lansing—3:00 p.m.
4. Friday, June 21—Cancer Committee—Woman's League Bldg., Ann Arbor—6:30 p.m.
5. Sunday, June 23—Preventive Medicine Committee—Hotel Statler, Detroit—3:00 p.m.
6. Thursday, June 27—Executive Committee of The Council—Porter Hotel, Lansing—3:00 p.m.
7. Friday, July 12—The Council—Mackinac Island beginning at 10 a.m. and continuing through Saturday, July 13.

* * *

A meeting of District Managers and representatives of Michigan Medical Service and the Michigan Society for Group Hospitalization was held in Detroit on May 17 and 18. Speakers and their subjects included the following: Henry R. Carstens, M.D., Chairman of the Board of Directors of MMS—"The Development of Group Medical Service Programs." Wm. J. Burns, Secretary of MMS—"Legal and Insurance Relations." R. G. Leland, M.D., Director of the Bureau of Medical Economics of the American Medical Association—"Voluntary Medical Service Plans." J. D. Laux, Executive Director of MMS—"Provisions of Medical Service Plan and Surgical Benefit Plan." L. Fernald Foster,

M.D., Secretary of the Michigan State Medical Society —"Medical Service Plans and the Medical Profession." John R. Mannix, Director of the Michigan Society for Group Hospitalization—"Presentation of Medical and Hospital Plans." Opportunity was given those attending to participate in the discussion of the subjects presented.

* * *

COUNTY SOCIETY MEETINGS

Alpena-Alcona-Presque Isle—May 29, Onaway. State Society Night and Dinner honoring Clarence A. Carpenter, M.D., of Onaway upon his completion of 40 years of medical practice. Many of the State Society officers were present.

Bay County—May 22, Bay City. Speaker: LeMoyne Snyder, LL.B., M.D., Lansing. Joint meeting with Bay County Bar Association.

Berrien County—June 6, Bridgman. Program on Cancer Prevention.

Calhoun County—June 6, Gull Lake. Sports in the afternoon. Evening program: Dr. Boldyreff's "Life and Work of Dr. Pavlov."

Dickinson-Iron—June 6, Iron River. Program on Back Injuries by Dr. Jones.

Eaton County—May 23, Charlotte. Speaker: Cyrus C. Sturgis, M.D., of Ann Arbor.

Hillsdale County—May 23, Hillsdale. Speaker: Arthur C. Curtis, M.D., Ann Arbor.

Ingham County—May 23, Lansing. Picnic Dinner prepared and served by members of the Woman's Auxiliary to the Ingham County Medical Society. On July 25, members of the Ingham County Medical Society will be guests of the C. J. Rouser Drug Company on a "Roman Holiday" consisting of a trip to Detroit, including a visit at the Parke Davis Laboratories and the baseball game between the Detroit Tigers and Washington Senators, as well as a banquet in the evening at the Book-Cadillac Hotel.

Ionia-Montcalm County—June 11, Green Gables, Saranac. Speaker: F. Bruce Fralick, M.D., Ann Arbor.

Jackson County—May 21, Jackson. Speakers: Carey P. McCord, M.D., Detroit and Alexander M. Campbell, M.D., Grand Rapids.

Kalamazoo County—May 21, Kalamazoo. Speakers: Herbert Harris, M.D., and Martin Batts, M.D., Ann Arbor.

Kent County—June 13, Grand Rapids. Doctor-Lawyer Picnic.

Lenawee County—May 21, Adrian. State Society Night. Speakers: Henry R. Carstens, M.D., Detroit; L. Fernald Foster, M.D., Bay City; H. H. Cummings, M.D., Ann Arbor; and Mr. Wm. J. Burns, Lansing.

Marquette-Alger County—May 21, Marquette. Speaker: M. Cooperstock, M. D., Marquette.

Midland County—March 14, Midland. Speaker: Russell Costello, M.D., Detroit. April 25, Midland. Gordon Myers, M.D., Detroit. May 9, Midland. Speaker: M. Cooperstock, M.D., Marquette.

Muskegon County—May 17, Muskegon. Speaker: Edward R. Krumbiegel, M.D., Milwaukee, Wisconsin.

Oakland County—June Meeting, Rotunda Inn. Speaker: Richard H. Freyberg, M.D., Ann Arbor.

St, Clair County—May 28, Port Huron. Speaker: L. B. Ashley, M.D., Detroit.

St. Joseph County—May 22, Three Rivers. State Society Night Program. Speakers: Burton R. Cobus, M.D., Grand Rapids; L. Fernald Foster, M.D., Bay City; Wilfrid Haughey, M.D., Battle Creek; Wm. J. Burns, Lansing and Capt. L. A. Potter of Lansing.

Shiawassee County—June 20, Owosso. Medical movie presented.

West Side Medical Society (Wayne County)—May 22. Annual Outing at Camp Nahelu, Perry Lake. June 12, Detroit. Special Meeting. Election of Officers.

* * *

NEW SOCIETY OFFICERS

Eaton County

President—Bert Van Ark, M.D., Eaton Rapids
Vice President—C. J. Sevener, M.D., Charlotte
Secretary—B. P. Brown, M.D., Charlotte
Treasurer—H. Hannah, M.D., Charlotte
Delegate—Paul Engle, M.D., Olivet
Alternate Delegate—F. W. Sassaman, M.D., Charlotte

Wayne County

President—Allan McDonald, M.D., Detroit
President-Elect—C. E. Simpson, M.D.
Secretary—Gaylord S. Bates, M.D.
Trustee (5-year term)—J. H. Andries, M.D.
Trustee (2-year term)—A. F. Jennings, M.D.
Surgical Section Chairman—L. J. Morand, M.D.
Surgical Section Secretary—Eugene A. Osius, M.D.
Medical Section Chairman—Douglas Donald, M.D.
Medical Section Secretary—Wm. P. Chester, M.D.

* * *

SUPPLEMENTARY ROSTER

The following physicians have paid dues since the regular Roster of Members was published in the May issue of THE JOURNAL:

Bay-Arenac-Iosco-Gladwin

Sweet, Irwin C.....Sterling

Berrien County

Bartlett, Walter M.....Benton Harbor
Brown, F. W.....Watervliet
Colef, Irving E.....Benton Harbor
Gunn, J. W.....Watervliet
King, Frank A., Sr.....Benton Harbor
Leva, John B.....Benton Harbor
Schairer, Wm.....Coloma

Calhoun County

Bonifer, Philip.....Battle Creek
Sleight, James D.....Battle Creek

Genesee County

Alm, Bernhard T.....Flint
Bernstein, Eli N.....Flint
Cohen, Evelyn.....Flint
Eichhorn, Ernest.....Flint
Reichard, Orill.....Flint

Gratiot-Isabella-Clare

Hersee, Wm. E.....Mt. Pleasant
Silvert, P. P.....Vestaburg

Hillsdale County

Davis, L. A.....Montgomery

Houghton-Baraga-Keweenaw

Ellis, Fred.....St. Louis, Mo.
Van Slyke, Wm. H.....Hancock

Huron-Sanilac County

Nowotka, E. E.....Bad Axe

Jackson County

Enders, W. H.....Jackson
Harris, L. J.....Jackson
Meade, Wm. H.....Jackson
Townsend, J. W.....Vandercook, Lake

Mason County

Goulet, L. J.....Ludington
Spencer, C. M.....Scottville

Monroe County

Long, Sara.....Monroe

Muskegon County

Hagen, Wm. A. ..... Muskegon
Petkus, Antonie ..... Muskegon

Oakland County

German, F. D. ..... Pontiac
Watson, Thomas Y. ..... Birmingham
Wiers, W. W. ..... Royal Oak

Ottawa County

Clark, Nelson ..... Holland
House, M. E. ..... Holland

St. Clair County

Carey, Lewis M. ..... Detroit

St. Joseph County

Dodrill, F. D. ..... Three Rivers

Van Buren County

Penoyar, C. L. ..... South Haven

Washtenaw County

Barr, A. S. ..... Ann Arbor
Bethell, Frank H. ..... Ann Arbor
Bruce, James D. ..... Ann Arbor
Frye, Carl H. ..... Ann Arbor
Gaensbauer, Ferdinand ..... Ann Arbor
Gates, Neil A., Jr. ..... Ann Arbor
German, James W. ..... Ypsilanti
Haight, Cameron ..... Ann Arbor
Hammond, George ..... Ann Arbor
Johnston, Franklin D. ..... Ann Arbor
Kretzschmar, Norman R. ..... Ann Arbor
Latham, Kent G. ..... Ann Arbor
Power, Frank H. ..... Ann Arbor
Riecker, H. H. ..... Ann Arbor
Riggs, H. W. ..... Ann Arbor
Seime, Reuben I. ..... Whitmore Lake
Smith, Nelson M. ..... Ann Arbor
Weller, Carl V. ..... Ann Arbor
Wilson, Frank N. ..... Ann Arbor

Wayne County

Baker, Howard B. ..... Detroit
Connolly, John P. ..... Detroit
Eades, Charles C. ..... Detroit
Malone, Herbert ..... Detroit
Muske, Paul H. ..... Detroit
Naud, Henry J. ..... Detroit
Nickels, Albert W. ..... Detroit
Rogers, Aaron Z. ..... Lochmoor
Stout, Lindley H. ..... Detroit
Peterman, Earl ..... Detroit

Voluntary Sterilization

March 14, 1940.

14963
Dr. J. E. McIntyre, Secretary,
State Board of Registration in Medicine,
202 Hollister Building,
Lansing, Michigan.
Dear Sir:

We acknowledge your letter of March 1, requesting an opinion as to whether our State has any legislation allowing an operation for voluntary sexual sterilization of men and women.

We call to your attention Section 6661, Complied Laws of 1929, pertaining to illegal sexual operations, which provides:

"Except as authorized by this Act, every person who shall perform, encourage, assist in, or otherwise promote the performance of either of the operations described in section one (1) of this Act, for the purpose of destroying the power to procreate the human species, or any persons who shall knowingly permit either of such operations to be performed upon such persons, unless the same shall be a medical necessity, shall be guilty of a felony, and upon conviction thereof shall be fined not more than one thousand ($1,000) dollars or imprisoned in the state prison not more than five (5) years, or both in the discretion of the court before whom the said person or persons were so convicted."

Section 6661 supra, is Section 5 of Act 34, Public Acts of 1913, which was declared unconstitutional by our Supreme Court in the case of Haynes v. Lapeer Circuit Judge, 201 Mich. 138, but it is our opinion that the decision in said case did not affect the validity or operation of said Section 5.

Very truly yours,
THOMAS READ,
Attorney General.
BY WILLARD McINTYRE,
Deputy Attorney General.

JOUR. M.S.M.S.

1940 EXHIBITORS

Exhibitors at the 1940 Diamond Anniversary Convention of the Michigan State Medical Society, to be held in the Book-Cadillac Hotel, Detroit, September 25, 26, 27, 1940, include:

	Space No.
Abbott Laboratories, Chicago	32
A. S. Aloe, St. Louis, Mo.	80
Arlington Chemical, Yonkers, N. Y.	53
Baker Laboratories, Cleveland	58
Bard-Parker Co., Inc., Danbury, Conn.	66
Barry Allergy Laboratory, Detroit	35
The Borden Company, New York	61
The Burrows Company, Chicago	51
Cameron Surgical Specialty Co., Chicago	40
S. H. Camp Co., Jackson, Mich.	17
Coca-Cola Company, Atlanta, Ga.	74
Cottrell-Clarke, Inc., Detroit	15
R. B. Davis Sales Corp., Hoboken, N. J.	75
Detroit X-Ray Sales Co., Detroit	69 & 70
Duke Laboratories, Stamford, Conn.	24
H. G. Fischer & Co., Chicago	7
General Electric X-Ray, Chicago	54
Gerber Food Products, Fremont, Mich.	41
Hack Shoe Company, Detroit	26
Hanovia Chemical & Mfg. Co., Newark, N. J.	33
J. F. Hartz Company, Detroit	55-56-57
H. J. Heinz Co., Pittsburgh	11
Holland-Rantos, New York	81
Horlick's Malted Milk Corp., Racine, Wis.	31
G. A. Ingram & Company, Detroit	63-64-65
Jones Metabolism Equipment Co., Chicago	9
A. Kuhlman & Co., Detroit	27-28
Lea & Febiger, Philadelphia	36
Lederle Laboratories, New York	12
Libby, McNeill & Libby, Chicago	76-77
Liebel-Flarsheim, Cincinnati	3
Eli Lilly & Company, Indianapolis	71
J. B. Lippincott Co., Philadelphia	2
M. & R. Dietetic Labs., Columbus	43
Mead Johnson & Co., Evansville, Ind.	72-73
Medical Arts Surgical Supply Co., Grand Rapids	59-60
Medical Case History Bureau, N. Y.	25
Medical Protective Co., Wheaton, Ill.	16
The Mennen Co., Newark, N. J.	67
Merck & Company, Rahway, N. J.	13
Wm. S. Merrell Co., Cincinnati	44
Michigan Society for Group Hospitalization and Michigan Medical Service, Detroit	68
C. V. Mosby Co., St. Louis	50
Muller Laboratories, Baltimore	52
Parke, Davis & Co., Detroit	18-19-20-21
Pelton & Crane, Detroit	37-38
Pet Milk Co., St. Louis	29-30
Petrolagar Laboratories, Chicago	22
Philip Morris Company, New York	42
Physicians' Equipment Exchange	79
Professional Management, Battle Creek	1
Ralston-Purina, St. Louis, Mo.	6
W. B. Saunders Company, Philadelphia	14
Schering Corp., Bloomfield, N. J.	49
Scientific Sugars Co., Columbus, Ind.	47
Sharp & Dohme, Philadelphia	39
S.M.A. Corp., Chicago	23
Smith, Kline & French, Philadelphia	10
E. R. Squibb, New York	8
Frederick Stearns, Detroit	45-46
Charles C. Thomas, Springfield, Ill.	78
U. S. Standard Products, Woodworth, Wis.	34
Vernor's Ginger Ale, Detroit	4
Westinghouse X-Ray Co., Long Island City, N. Y.	62
John Wyeth & Bro., Philadelphia	5
Zimmer Manufacturing Co., Warsaw, Ind.	48

The above list of your friends in business is published for your convenience. When you need reliable medical supplies or other commodities and service offered to you by these firms, remember they make it possible for you to enjoy one of the outstanding state medical conventions by their generous support of your annual meeting. Why not save an order for your exhibitor friend?

CREDIT IS DUE

Registration for Tuesday, September 19, 1939

Hugh Aach, Kalamazoo; Max Abramson, Detroit; Frank A. Adams, Grand Rapids; Leonard C. Aldrich, Hancock; W. H. Alexander, Iron Mountain; Ralph V. Allen, Grand Rapids; Samuel S. Altshuler, Detroit; Florence Ames, Monroe; Einer B. Andersen, Iron Mountain; Harvey M. Andre, Battle Creek; Robert J. Armstrong, Kalamazoo; A. L. Arnold, Jr., Owosso; Ralph V. August, Muskegon Heights.

George H. Baert, Grand Rapids; Abel J. Baker, Grand Rapids; Robert H. Baker, Pontiac; Frederick W. Bald, Flint; William S. Ballard, Grand Rapids; Gordon W. Balyeat, Grand Rapids; L. R. Banner, Kalamazoo; R. H. Baribeau, Battle Creek; James W. Barnebee, Kalamazoo; S. E. Barnhart, Battle Creek; W. H. Barnum, Fremont; D. K. Barstow, St. Louis; Walter M. Bartlett, Benton Harbor; F. W. Baske, Flint; Theodore I. Bauer, Lansing; Horace J. Beel, Grand Rapids; Carl B. Beeman, Grand Rapids; C. E. Beeman, Grand Rapids; Howell L. Begle, Detroit; G. W. Behan, Galesburg; Chas. M. Bell, Grand Rapids; Zina B. Bennett, Detroit; Wm. L. Bettison, Grand Rapids; Wm. S. Bird, Greenville; Charles E. Black, Lansing; H. M. Blackburn, Grand Rapids; L. E. Blanchard, Hudson; C. J. Bloom, Muskegon; Richard C. Boelkins, Grand Rapids; Frank A. Boet, Grand Rapids; Leon M. Bogart, Flint; J. E. Bolendar, Grand Rapids; Geo. L. Bond, Grand Rapids; W. W. Bond, Monroe; Leon C. Bosch, Grand Rapids; DeVere, R. Boyd, Muskegon; C. E. Boys, Kalamazoo; Lewis E. Bracey, Sheridan; James S. Brotherhood, Grand Rapids; G. M. Brown, Bay City; Richard J. Brown, Owosso; Willis E. Brown, Ann Arbor; Jas. D. Bruce, Ann Arbor; Jacob Bruggema, Evart; Kathryn M. Bryan, Manistee; M. J. Budge, Ithaca; F. L. Bull, Sparta; E. P. Bunce, Trufant; John S. Burleson, Grand Rapids; J. H. Burley, Port Huron; W. M. Burling, Grand Rapids; B. B. Bushong, Traverse City; Volney Butler, Detroit; Wm. J. Butler, Grand Rapids; Earle J. Byers, Grand Rapids.

Alexander M. Campbell, Grand Rapids; Alice F. Campbell, Albion; James B. Campbell, Big Rapids; Mary B. Campbell, Detroit; Clarence A. Carpenter, Onaway; Ward L. Chadwick, Grand Rapids; M. S. Chambers, Flint; Donald Chandler, Grand Rapids; Wm. S. Chapin, Muskegon Heights; Leo F. Chess, Reed City; L. G. Christian, Lansing; E. O. Cilly, Grand Rapids; H. W. Clapp, Grand Rapids; Wm. E. Clark, Mason; Robert W. Clayton, Grand Rapids; Horace R. Cobb, Kalamazoo; Thomas H. Cobb, Woodland; W. G. Colvin, Grand Rapids; C. W. Colwell, Flint; R. C. Conybeare, Benton Harbor; C. A. Cooper, Hancock; M. Cooperstock; Marquette; Charles V. Crane, Grand Rapids; Edward M. Cuncannan, Grand Rapids; James E. Curlett, Roseville.

Edward C. Dale, Shepard; Harold J. Damstra, Grand Rapids; A. F. Dasler, Muskegon Heights; Alfred Dean, Grand Rapids; Guy Wm. De Boer, Grand Rapids; C. De Long, Grand Rapids; Richard De Mol, Grand Rapids; Isla G. De Pree, Grand Rapids; Leon De Vel, Grand Rapids; H. G. De Vries, Holland; A. R. Dickson, Battle Creek; Willis L. Dixon, Grand Rapids; W. E. Dolfin, Wayland; Fred J. Drolett, Lansing; James C. Droste, Grand Rapids; S. L. Drummond, Casnovia; W. J. DuBois, Grand Rapids; L. S. Dunkin, Greenville.

Robert M. Eaton, Grand Rapids; Robert J. Elvidge, Detroit; C. W. Ely, Saginaw; Earl H. Engel, Wyandotte.

C. G. Fahndrich, Battle Creek; John Fletcher Failing, Grand Rapids; L. W. Faust, Grand Rapids; Harold B. Fenech, Detroit; Edwin H. Fenton, Detroit; Lynn A. Ferguson, Grand Rapids; Ward S. Ferguson, Grand Rapids; W. B. Fillinger, Ovid; Ralph L. Fitts, Grand Rapids; J. Donald Flynn, Grand Rapids; Clair E. Folsome, Ann Arbor; John W. Fopeano, Kalamazoo; A. V. Forrester, Detroit; F. Bruce Fralick, Ann Arbor; Mary Margaret Frazer, Detroit; E. H. Fuller, Grand Rapids; R. W. Fuller, Crystal.

Everett W. Gaikema, Grand Rapids; F. W. Garber, Muskegon; L. W. Gatley, Pontiac; Harold H. Gay, Midland; C. J. Geenen, Grand Rapids; Willis Geerlings, Fremont; L. O. Geib, Detroit; Louis W. Gerstner, Kalamazoo; O. H. Gillet, Grand Rapids; Geo. R. Goering, Flint; C. J. Golinvaux, Monroe; C. L. Grant, Manistee; Frank A. Grawn, Traverse City; G. P. Graybiel, Caledonia; B. F. Green, Hillsdale; L. S. Griffith, Grand Rapids.

D. B. Hagerman, Grand Rapids; Brenton M. Hamil, Detroit; Kuno Hammerberg, Clare; T. W. Hammond, Grand Rapids; Wm. W. Handy, Flint; G. R. Hanke, Ransom; Faith F. Hardy, Grand Rapids; Wm. L. Harrigan, Mount Pleasant; A. F. Harrington, Muskegon; Dean W. Harris, Lansing; Hallie Hartgraves, Detroit; Shattuck W. Hartwell, Muskegon; James W. Hawkins, Detroit; R. E. Hawley, St. Clair Shores, Marne; H. B. Haynes, Lansing; C. W. Heald, Battle Creek; T. F. Heavenrich, Port Huron; Dewey R. Heetderks, Grand Rapids; Ruth Herrick, Grand Rapids; Harold C. Hill, Howell; R. J. Himmelberger, Lansing; T. Y. Ho, St. Johns; John T. Hodgen, Grand Rapids; K. P. Hodges, Lansing; A. Hoekman, Constantine; M. A. Hoffs, Lake Odessa; M. J. Holdsworth, Grand Rapids; S. Hollander, Grand Rapids; A. Holm, Le Roy; R. J. Hubbell, Kalamazoo; O. D. Hudnutt, Allegan; A. R. Hufford, Grand Rapids; H. F. Hughes, Hillsdale; J. G. Huizinga, Holland; R. J. Hutchinson, Grand Rapids; W. C. Huyser, Kalamazoo.

M. C. Igloe, Big Rapids; F. C. Irwin, Grand Rapids; J. F. Itzen, South Haven.

Robert Jaenichen, Saginaw; R. Grant Janes, Marquette; W. J. Jaracz, Grand Rapids; Alpheus F. Jennings, Detroit; Allan W. Johnson, Grand Rapids; K. H. Johnson, Lansing; O. G. Johnson, Mayville; P. R. Johnson, Mt. Pleasant; Charles Johnston, Detroit; T. K. Jones, Marshall; William S. Jones, Menominee.

A. H. Keefer, Concord; K. B. Keeler, Albion; S. S. Keller, Saginaw; Robert E. Kelly, Grand Rapids; Gerrit J. Kemme, Zeeland; Thos. R. Kemmer, Grand Rapids; George I. Keskey, Marquette; Saba Kessler, Bay City; M. R. Kinde, Battle Creek; John G. Kingma, Decatur; F. O. Kirker, Sandusky; Delmos K. Kitchen, Detroit; David Kliger, Detroit; Henry P. Kooistra, Grand Rapids; John Kremer, Grand Rapids; C. G. Krupp, Grand Rapids.

The above list represented a portion of the registration on Tuesday, September 19, 1939. The balance of those registering at the 1939 Convention will be published in succeeding issues of THE JOURNAL.

READING NOTICE

Oral Bismuth Therapy

A survey of the most important contributions dealing with economic aspects of syphilis (Am. J. M. Sc., 199: 586, 1940) emphasizes the staggering cost of this disease to the individual, the community, and the nation at large. The total cost of syphilis is enormous, even in these days when governments spend millions or billions of dollars daily. Treatment will wholly prevent this unnecessary expense. Untreated syphilis is a luxury for either individual or community.

The minimum number of persons in the United States constantly in need of medical care because of syphilis is estimated as 683,000. Annually, 500,000 cases of early syphilis seek authorized medical care. The probability of acquiring the infection sometime during life is one out of ten.

The usefulness of bismuth intramuscularly as an antisyphilitic agent has been demonstrated beyond question, and more recently the development of a soluble and clinically useful bismuth preparation suitable for oral administration has been accomplished in Sobisminol Mass, Lilly. It should be administered under the continuous supervision of the physician. Dosage may be controlled with certainty by estimation of the bismuth excretion in the urine, using Bismuth Excretion Test Tablets, Lilly.

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

WHAT IT MEANS TO BE A DOCTOR.

From the opening sentence of Dwight Anderson's 86-page book which reads: "When illness occurs, we call the doctor. He comes," to the very last sentence, "What happens to the doctor also determines what happens to the patient. Their interests are the same," the reader packs in an enjoyable and illuminating two hours, whether he be physician or layman.

The Public Relations Bureau of the Medical Society of the State of New York sponsored this very interesting brochure, which is divided into three parts: What It Means . . . to Doctors; What It Means . . . to Dr. James (the hero of the piece); What It Means . . . to the Public.

"What It Means To Be a Doctor" should be on the waiting-room table of every physician in Michigan, yea, in the land. It is the kind of book that patients should "borrow" from the doctor's office (permanently) and pass out on from neighbor to neighbor.. It is medical public relations at its best.

CLINICAL HEART DISEASE. By Samuel A. Levine, M.D., F.A.C.P., Assistant Professor of Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston. Second Edition, Revised and Reset. Philadelphia and London: W. B. Saunders Company, 1940. Price: $6.00.

This is the second edition of the book published by this well-known cardiologist in 1936. While no great or fundamental advances in cardiology have taken place, changes bearing on certain subjects have occurred, especially in nomenclature of electrocardiograms. The book has been made much more practical and covers the subject of cardiology in a very readable manner. Its distinctly readable character and clear exposition make it valuable to the student and practitioner alike.

NEOPLASTIC DISEASES, A Treatise on Tumors. By James Ewing, A.M., M.D., Sc.D., LL.D., Professor of Oncology at Cornell University Medical College, New York City; Consulting Pathologist, Memorial Hospital. Fourth Edition, Revised and Enlarged with 581 Illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $14.00.

This is fourth edition of this comprehensive volume on neoplastic diseases, the third edition of which was published in 1928. The past twelve years have brought forth so much more information regarding these conditions that this edition is especially valuable. The reputation of the author requires no comment and the book is exceedingly comprehensive. It is so all-inclusive that it is difficult to believe there could be any question regarding new growths which is not amply explained in this book.

THE POISON TRAIL. By William F. Boos, M.D. Boston, New York: Hale, Cushman and Flint, 1940. Price: $3.00.

While this book was written primarily for the layman, it is of intense interest to any physician, particularly those who are intrigued by the medico-legal aspects of their profession. Dr. Boos is one of the country's leading pharmacologists and toxicologists. His part in the investigations of criminal and accidental poisonings has covered a period of many years. This is one of the few times when a scientific authority has written an interesting book.